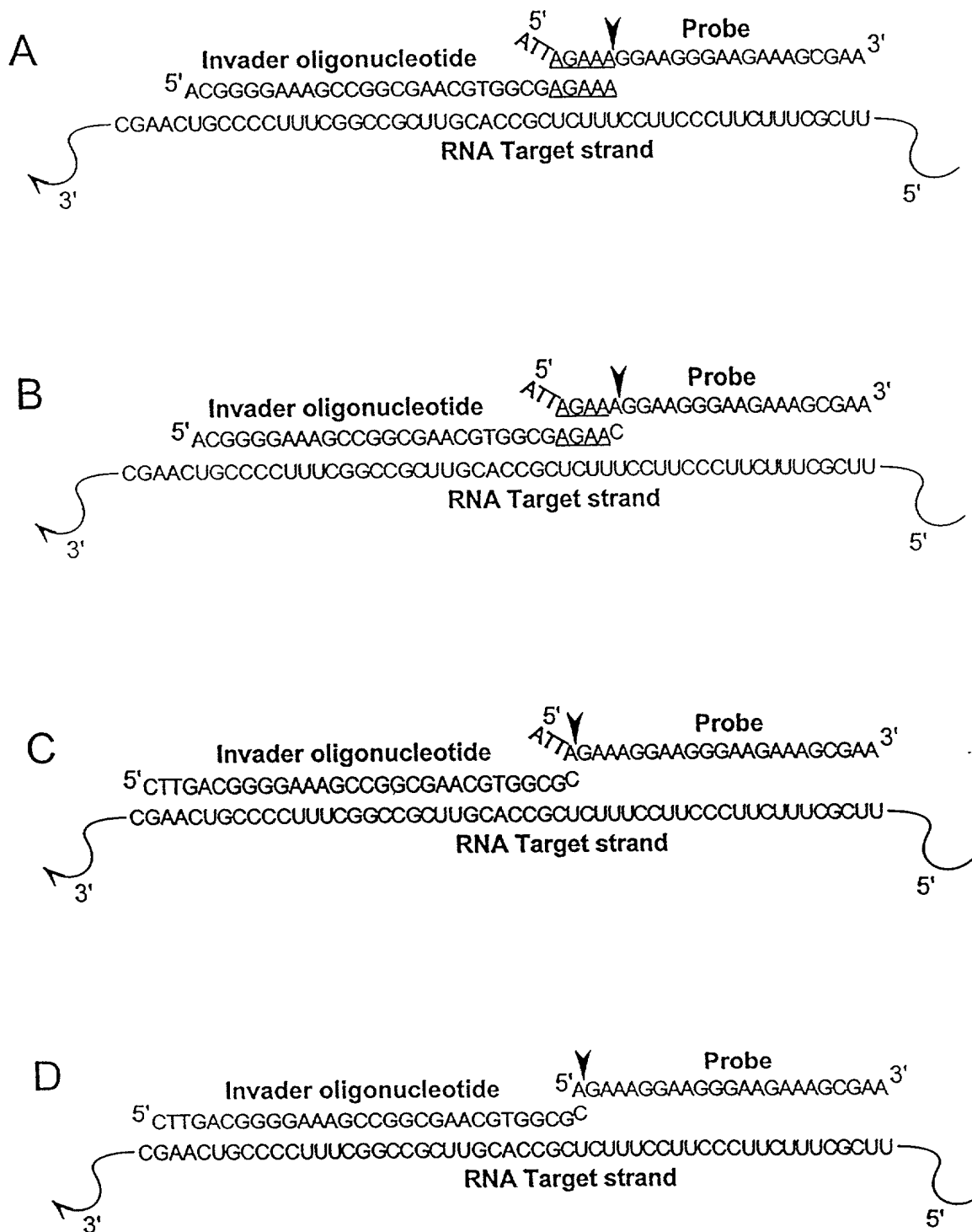


FIGURE 1

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FIGURE 2



202509249860

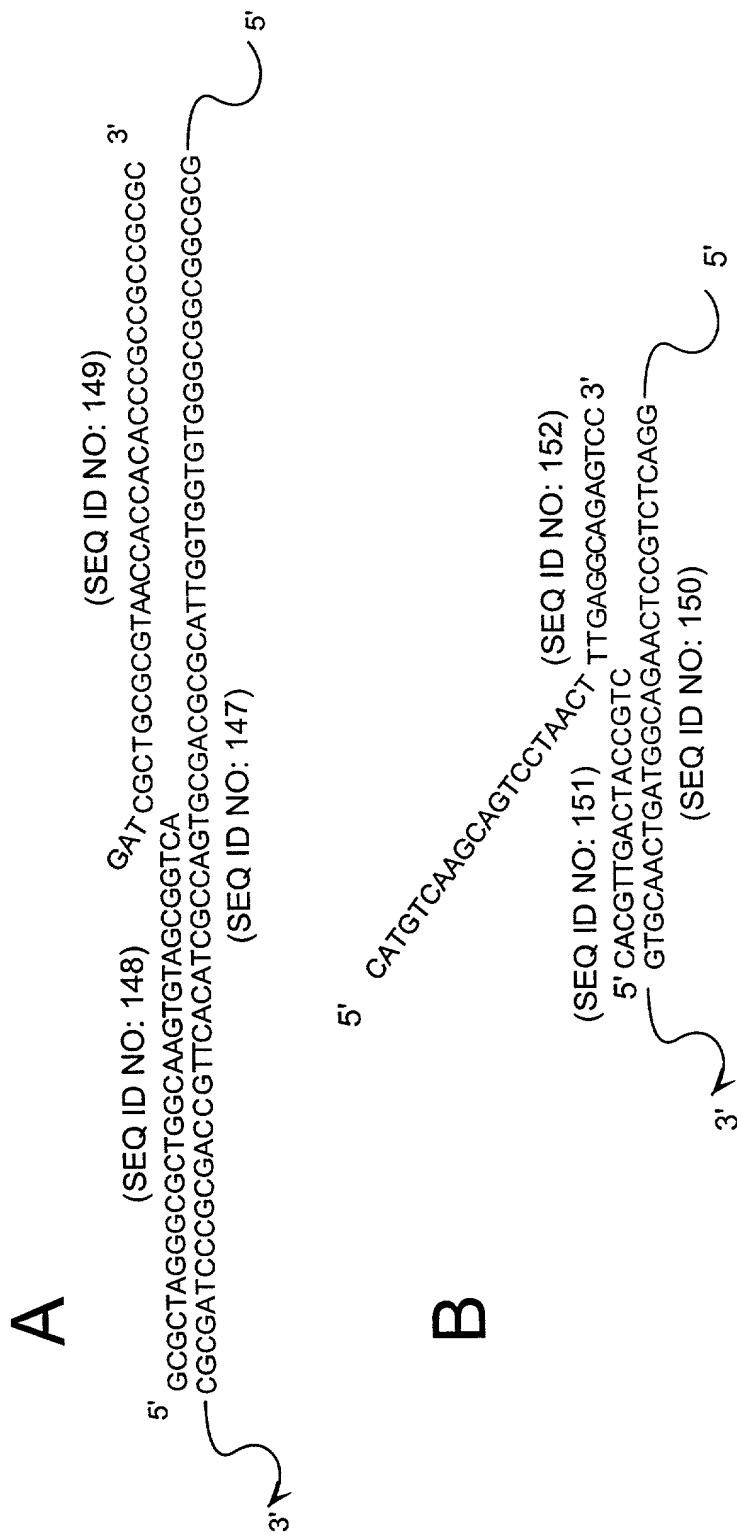


FIGURE 3

096436-0240
096436-0240

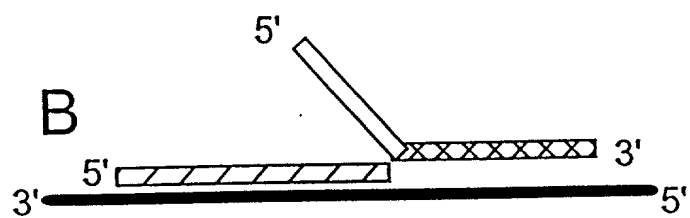
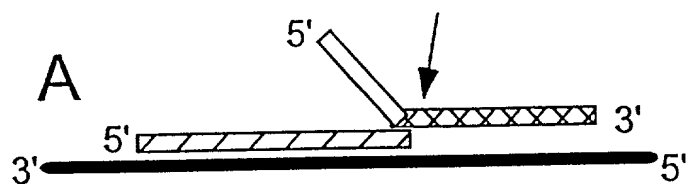


FIGURE 4

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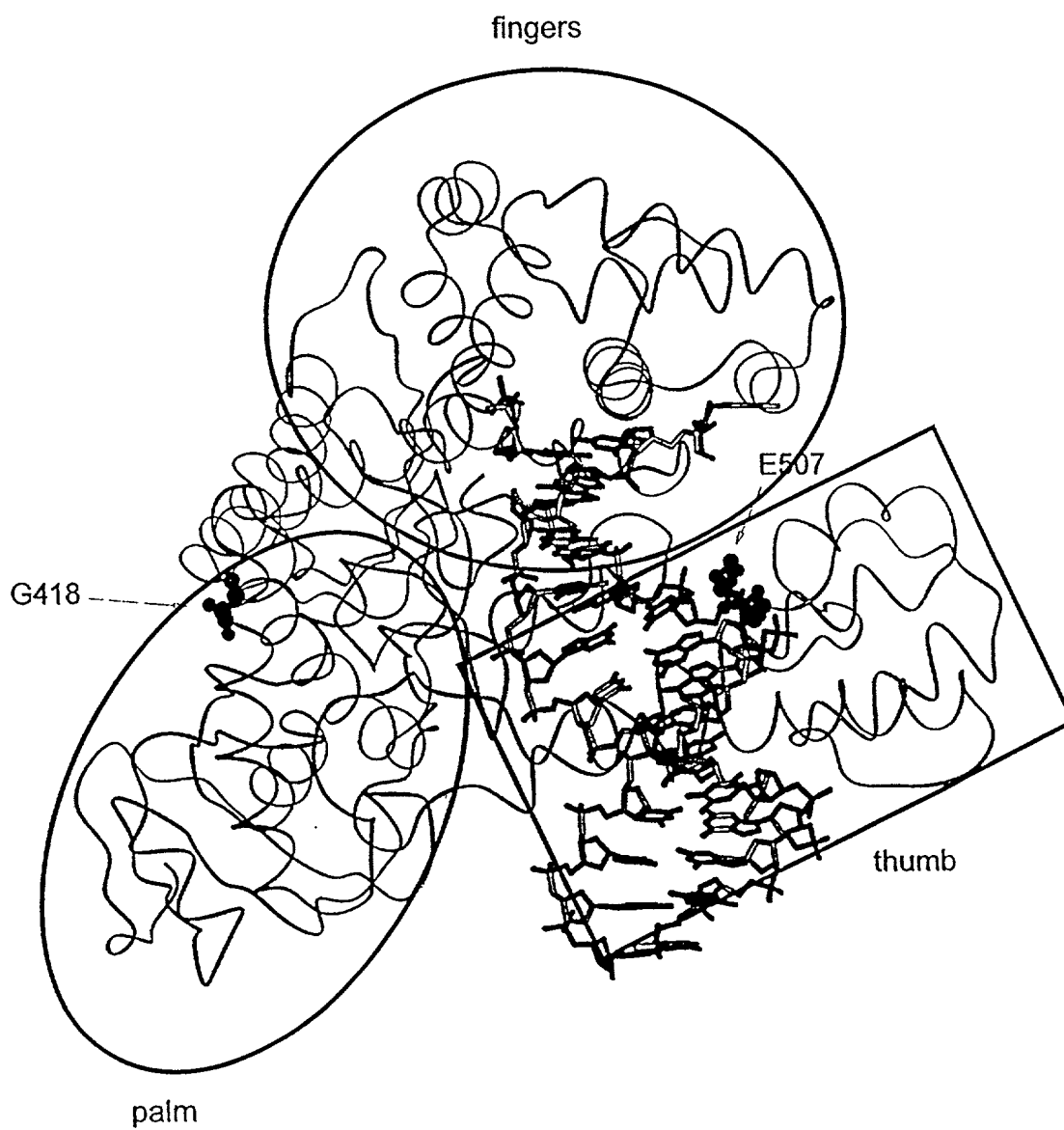


FIGURE 5

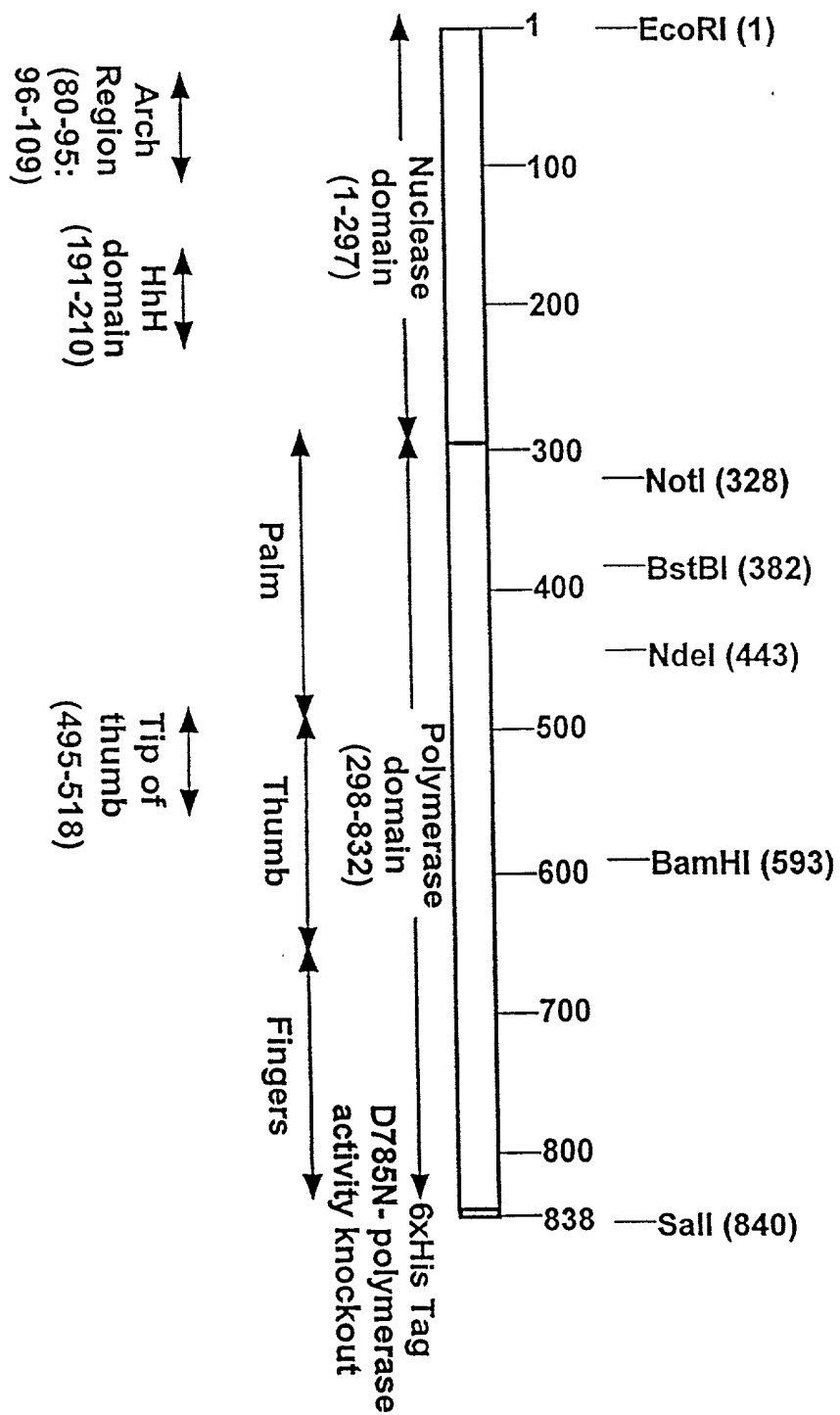


FIGURE 6

104230 9634350

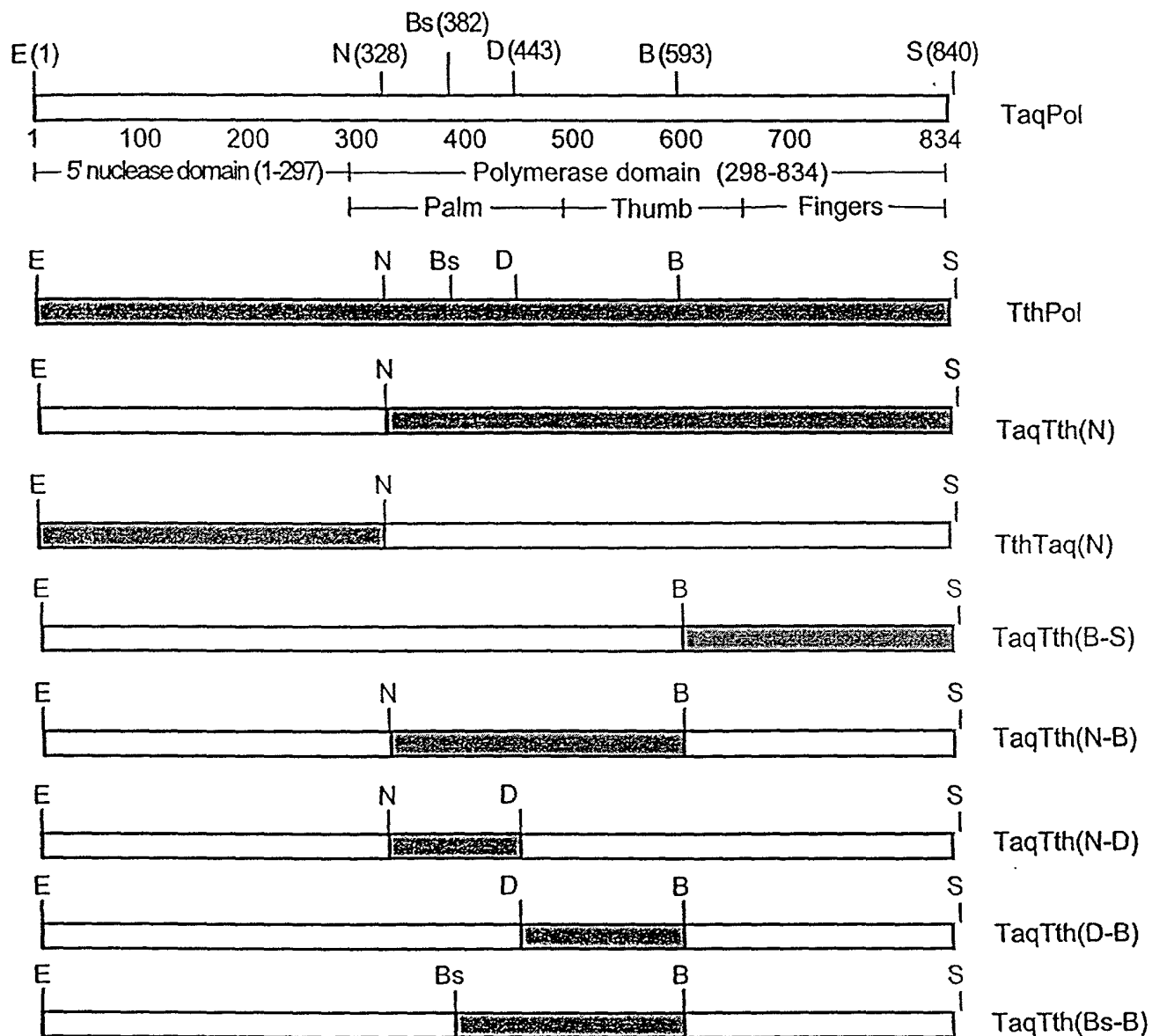


FIGURE 7

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FIGURE 8A

MAJORITY	[SEQ ID NO:156]	ATGXXGGGGATGCTTGGCGCTCTTTGAGGCCAAAGCCGGGTCTCTGCTGGAGGGGACGAGCTGGCCT	
DNAPTAQ	[SEQ ID NO:153]	AG..G.....G.....G.....	70
DNAPTFL	[SEQ ID NO:154]	.....G.....G.....	67
DNAPTTH	[SEQ ID NO:155]	GA.....G.....A.....	70
MAJORITY	ACCGCAGCCTTCTTGGCGCTGAAGGGCTCAGCAGCGCGGGCGAAGCGGTGCAGGGCGTCTACGGCCT		
DNAPTAQ		GA.....G.....G.....	140
DNAPTFL		T.....C.....G.....C..T.....	137
DNAPTTH		.....G.....	140
MAJORITY	CGGCAAGAGCGCTCCTCAAGGCCCTGAAGGAGGACGGGGGACXXGGGGTGXTGGTCTTTGAGCGCAAG		
DNAPTAQ		.....C.....A.....	207
DNAPTFL		A.....GT..T.....	204
DNAPTTH		.....T..AA..G..CT.....	210
MAJORITY	CGCGCCTCCTTCGGCCAGGAGGGCTAGGAGGCTACAAGCGGGGGCGGGCGCCACCGCGGAGGACTTTC		
DNAPTAQ		.....G..GG.....G.....	277
DNAPTFL		.....GA.....G.....C.....	274
DNAPTTH		.....	280
MAJORITY	CGCGGCAGCTCGCGCTCATCAAGGAGCTGCTGGACCTCCTGGGGCTTCGGCGGCTCGAGGTCCCGGGGCTA		
DNAPTAQ		A.....G.....G.....	347
DNAPTFL		G.....T.....A..C...T...G..G.....T.....	344
DNAPTTH	T...A..G.....	350

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MAJORITY [USED IDNO:156] TCGAGGGCCGACATGGAXGACCTGAXGCTCTCCTGGGAGCTXTCCGAGGTGGCGACCGAGCTGGCGCTGGA

DNAPTAQ	[SEQ ID NO:153].	T.		G..T.	A.	C.	GG.	A.	764
DNAPTFL	[SEQ ID NO:154].		GGG.	G.C.	GGC.T.	C.A.	T.	A.	761
DNAPTTH	[SEQ ID NO:155].	A.		C.	A.	C.G.	C.	G.	770

MAJORITY GGTGGACTTCGCCAAGXGGCGGGAAGCGGACCGGGAGGGGCTTAGGGCCTTCTCGAGAGGCTGCAGTTT

DNAPTAQ	.....AA.....A.....T.....	834
DNAPTFL	.....GG.G.C.C..CACA...A..T.....T.....	831
DNAPTTH	.....C.....C.G.....C.....C.....C.....	840

MAJORITY GGCAGGCGTCCTCCACGAGTTGGGCGTCCTGGAGGGCGCCGCAAGGCCCTGCAGGAGGCGCGCGCTGGCGCGCGCG

DNAPTAQ	.....T.....AA.....	904
DNAPTFL	.....G.....GCCA.....T.	901
DNAPTTH	.....C.....GGCG.....	910

MAJORITY CCGAAGGGGGCTTGGTGGGCTTTGTGCTTCCGGCCCGAGCCCATGTGGCCGAGCTTCTGGCCCTGGG

DNAPTAQ	.....G.....AAG.....T.....	974
DNAPTFL	.....TT.....TC.T.....T.....	977
DNAPTTH	.....G.....C.....G.....AAA.....	980

MAJORITY CCGCGCCAGGGAGGGCGGGCTCCACGGGGGACGAGACCGCTTAXGGCCCTXAGGGAGCTXAAGGAGGTG

DNAPTAQ	G.....C.C.G.T.A.AA.C..G.....G.....C.	1044
DNAPIFL	T.GG..GT.....G.CG...T....C..G.....G.....T.....G.	1041
DNAPTHH	...TG.....C.....G.....GGC..G.A.A.....G.....C	1050

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MAJORITY	[SEQ ID NO:156]	GGGGGXCTCCTGGCCCAAGGAGCTGGCGGTTTTGGCCCTGAGGGAGGGGCTXGACCTGXTGCCCGGGGAGG	
DNAPTAQ	[SEQ ID NO:153]	.....G..T.....A.....AG.....C.....A.....T.G.....CC.....C.....	1114
DNAPTFL	[SEQ ID NO:154]	.....AA.....G.....G.....G.....G.....T.C..A.A.....	1111
DNAPTTH	[SEQ ID NO:155]	.....C.....C.....TC.....G..A.....G.....	1120
MAJORITY	ACCCGATGCTCCTGGCTAGCTCCTGGAGCCCTCCAACACGACCGCCGAGGGGTTGCCCGGGGCTACGG		
DNAPTAQ		.....T.....	1184
DNAPTFL		.....G.....T.....T.....T.....	1181
DNAPTTH		.....G.....G.....	1190
MAJORITY	GGGGGAGTGGAGGGAGXGCCGGGGAGGGGGGCTGCTXTCGGAGAGGCTCTTCCXGAAGCTXXXGGAG		
DNAPTAQ		.....G.....G.....T.....GC.....GGC.....GTG..G.	1254
DNAPTFL		.....T.....A.....GG.....C.C.....A..C...AAA....	1251
DNAPTTH		.....C..C.CCC.C.....C..G.....CAT.G.....CGTTA..	1260
MAJORITY	GGGCTTGAGGGGAGGAGGGTCCTTTGGCTTACGAGGAGTGGAGAGCGGCTTCCGGGGTCCCTGG		
DNAPTAQ		A.G.....G.....G.....G.....GCT.....	1324
DNAPTFL		.....A..A..A.C.C..G.....G.....G.....GT...	1321
DNAPTTH		.....C.....A.....C.....C.....A.....C.....	1330
MAJORITY	CCGACATGGAGGGGAGGGGTXCGGGCTGGACGTGGGCTAGCTCGAGGGGCTXTCCCTGGAGGTGGCGGA		
DNAPTAQ	G..C.....T...AG....T.G.....C...	1394
DNAPTFL	G.....C.....C.....G.....A..C	1391
DNAPTTH	G.....C.....A.....T.....C.T.....	1400

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FIGURE 8E

MAJORITY	[SEQ ID NO:156] GGAGATCGGGGGGCTCGAGGAGGAGGTCTTCGGGCTGGCGGGGACCCCTTCAAGCTCAACTCGGGGGGAG	
DNAPTAQ	[SEQ ID NO:153].....GC.....CC.....	1464
DNAPTFL	[SEQ ID NO:154].....G.G...AG..G.....	1461
DNAPTTH	[SEQ ID NO:155].....T..G.....	1470
MAJORITY	GAGCTGGAAAGGCTGCTCTTTGACGAGGCTXGGGCTTCGGGCCATCGGCAAGACGGAGAAAGACXGGCAAGC	
DNAPTAQ	.....G.....A.....	1534
DNAPTFL	.....GC.....G..C..G..T.....	1531
DNAPTTH	.....TA.....T.G..G.....C.A.....	1540
MAJORITY	GCTCGACCGCGCGGCTGCTGGAGGGCCCTXCGXGAGGGCGGACGCCCATCGTGGAGAAGATCCTGCAGTA	
DNAPTAQ	.....C.....C..C.....	1604
DNAPTFL	.....T.....G..A.....CGGC.....	1601
DNAPTTH	.....G.....A..G.....C...C..	1610
MAJORITY	CGGGGAGCTCAGCAAGCTCAAGAACAGCTACATXGACCCCTGCCXGXCTCGTCCAGCCGAGGAGGGGG	
DNAPTAQ	.....G...G.....T...T...G.A...A.....	1674
DNAPTFL	.....A.....A.....G.C...G...A...C...C...C...	1671
DNAPTTH	.....G.G.....C..AAG.....G.....	1680
MAJORITY	CGGCTCGACAGCGGCTTCAACGACAGCGGCCACGGGGGAGGGCTTAGTAGCTCGGAGCCGCAACCTGC	
DNAPTAQ	.....A.....T.....C..	1744
DNAPTFL	..G.....C.....TGC.....	1741
DNAPTTH	.....G.....	1750

MAJORITY	[SEQ ID NO:156]	AGAACATCGCGGTGGGACGGCGCTGGCCAGAGGATCGCGCGGGCGCTTGGTGGCGAGGAGGGXTGGGT	
DNAPTAQ	[SEQ ID NO:153]	.....G..T..G.....A.C.....G...G..	1814
DNAPTFL	[SEQ ID NO:154]	.....G.....C.C.....A.....C.....G...G..	1811
DNAPTTH	[SEQ ID NO:155]	.....GT.....C.....C.....T.....G.....G.....	1820
MAJORITY	GTTGGTGGCCCTGGACTATAGCCAGATAGAGCTCGGGGTGCTGGCGCAGCTCTCGCGGGAGGAGAACCTG		
DNAPTAQ	A.....A.....A.....G.....C.....C.....		1884
DNAPTFL	.G.....T.T.....G.....T.....T.....T.....T.....		1881
DNAPTTH	.....C.....C.....G.....C.....A.....A.....		1890
MAJORITY	ATCGGGGTCTTCAGGAGGGAGGACATCCACACCCAGAGCGCGGAGCTGGATGTTGGGGGTGCGCGCGGG		
DNAPTAQ	.....G.....G.....G.....G.....G.....G..		1954
DNAPTFL	.....T.....T.....T.....T.....T.....T.....		1951
DNAPTTH	A.....A.....A.....A.....A.....A.....		1960
MAJORITY	AGCGCGTGGACCCCGTGATCGCGCGGGGGCCCAAGACGATCAACTTCGGGGTCCCTCTACGGGCATGTCCGG		
DNAPTAQ	.....A.GG..A.....T.....G.....G.....G..		2024
DNAPTFL	.....A.....T.....G.....G.....G.....G..		2021
DNAPTTH	.....G.....G.....G.....G.....G.....G..		2030
MAJORITY	CGACCGGCTCTCGCAGGAGGCTTGGCATCCGCTACGAGGAGGGCGGTGGCCCTTCATTGAGCGGCTACTTCCAG		
DNAPTAQ	.....A.....A.....T.....CCA.....T.....T...		2094
DNAPTFL	.....GG.....T.....T.....T.....T.....T...		2091
DNAPTTH	...TA.G.....T.....T.....T.....T.....A		2100

MAJORITY [SEQ ID NO:156] AGCTTCGGCAAGGTGGGGGCTGGATTGAGAAAGACCTCGAGGAGGGCAGGAGGGGGGTACGTGGAGA

DNAPTAQ [SEQ ID NO:153] 2164
 DNAPTFL [SEQ ID NO:154] A. GG. C. G. CC. T. 2161
 DNAPTTH [SEQ ID NO:155] A. A. G. A. C. A. 2170

MAJORITY CGCTCTTGGGGGGGGGGCTACGTGCGCGGACCTCAAGCGCGGGTGAAAGAGCGTGGGGGAGGGGGGGA

DNAPTAQ C. A. AG. G. G. 2234
 DNAPTFL T. C. 2231
 DNAPTTH AA. AA. CA. G. 2240

MAJORITY GCGCATGGCGTTCAACATGGCGGTCGAGGGCACCGCGCGGACCTCATGAAGCTGGCCATGGTGAAGCTC

DNAPTAQ T. 2304
 DNAPTFL G. CG. ... T 2301
 DNAPTTH G. 2310

MAJORITY TTGGCGGGGCTXCAGGAAATGGGGGGCAGGATGCTCCTXCAGGTCCAGGAGGCTGGTGGTGGAGGGCGG

DNAPTAQ A. GG. T. 2374
 DNAPTFL T. C. TT. G. G. 2371
 DNAPTTH G. C. G. G. C. CC. G. 2380

MAJORITY CGAAAGAGCGGGGGAGGXGGTGGCGGGCTTTGGCCAAAGGAGGTCATGGAGGGGGTCTATCGCGTGGCGGT

DNAPTAQ A. A. GG. CGGC. G. 2444
 DNAPTFL G. C. AG. ... A. GG. GAG. ... 2441
 DNAPTTH G. ... C. C. A. AA. C. G. 2450

FIGURE 8H "SECT 9360"

MAJORITY [SEQ ID NO:150] GCGCGCTGGAGGCTGGAGGCTGGGGATGGGGGAGGACTGGCTCTCGCGCCAAAGGAGTAG
 DNAPTAQ [SEQ ID NO:153]A..... GA
 DNAPTFL [SEQ ID NO:154]CC.....
 DNAPTTH [SEQ ID NO:155]T.....GT...

2499
 2496
 2505

FIGURE 9A

MAJORITY [SEQ ID NO:159]MXAML PLFEPKGRVLLVDGHHLAYRTFFALKGLTTSRGEPVQAVYGFASKLLKALKEDG-DAVXVVVFDK

TAQ PRO [SEQ ID NO:157].RG.....H.....I.....69

TFL PRO [SEQ ID NO:158].V.....V.....68

TTH PRO [SEQ ID NO:1]E.....YK..F.....70

MAJORITY APSFRHEAYEAYKAGRAPTPEDFPRLALI KELVDLLGLXRLEVPGYEADDVLATLAKKAEKEGYEVRI L

TAQ PROGG.....A.....S.....139

TFL PROV.....F.....R.....138

TTH PROFT.....140

MAJORITY TADRDLYQLLSDRI AVLHPGYLITPAWL WEKYGLRPEQWVDYRALXGDPDNLPGVKGI GEKTAXKLLX

TAQ PROK.....H.....D..A.....T..E.....R...E 209

TFL PROE...I.....Y.....A.....I.....QR..IR 208

TTH PROV...V.....H...E.....F...V.....L...K 210

MAJORITY EWGSLLENLLKNLDRVKP-XXREKIXAHMEDLXL SXLSXVRTDLPLEVDFAXRREPDREGLRAFLERLF

TAQ PROA.....L...AI...L...D..K..WD.AK.....K.....R.....278

TFL PROFOH..Q...SL...LQ.G..A.A..RK..Q.H.....GR..T.NL.....277

TTH PROENV.....K..L...R..LE..R.....L.QG.....280

MAJORITY GSLLHEFGLLEXPKALEEAPWPPPEGAFVGFVLSRPEPMWAE LALAAARXGRVHRAXDPLXGLRDLKEV

TAQ PROS.....K.....D.....G.....PE.YKA.....A 348

TFL PROG...A.....L..SF.....G.WE..L...Q...R.....G. 347

TTH PROA.AP.....K.....C.D.....A...A..K.....350

MAJORITY	[SEQ ID NO:159]	RGL LAKDLAVLALREGDLXPGDDPML LAYLLDPSNTTPEGVARRYGGEWTE DAGERALLSERLFXNLXX	
TAQ PRO	[SEQ ID NO:157]	S.....G. P.....E.....A.....A.....A...WG	418
TFL PRO	[SEQ ID NO:158]	I.....F. E.....A.....A.....QT. KE	417
TTH PRO	[SEQ ID NO:1]	S.....V.....AH.....HR..LK	420
MAJORITY	RLEGEERLLWLYXEVEKPLSRVLAHMEATGVRLDVAYLQALSLEVAEEI RRLEEEVFRLAGHPFNLSRD		
TAQ PRO	R...R...A.....R.....A.....A.....	488	
TFL PRO	K.....E.....R.....EA. V. Q.....	487	
TTH PRO	K.....H.....L.....	490	
MAJORITY	QLERVLFDELGLPAIGKTEKTGKRSTSAAVLEALREAHPIVEKILOYRELTCLKNTYIDPLPXLVHPRTG		
TAQ PRO	.....S.....D. I.....	558
TFL PRO	.....DR.....A...K..	557
TTH PRO	R...L...Q.....H.....V.....S.....	560	
MAJORITY	RLHTRFNQTATATGRLSSSDPNLQNI PVRTPLGQRI RRAFVAEEGWXLVALDYSQIELRVLAHLSGDENL		
TAQ PRO	.....I.....L.....	628
TFL PRO	.....V...V.....	627
TTH PRO	.....A...A.....	630
MAJORITY	IRVFQEGRDIHTQTASWMF GVPPEAVDPLMRRAAKTI NFGVLYGMSAHLRSLQELAI PYEEAVAFIERYFQ		
TAQ PRO	E.....R.....Q.....	698	
TFL PRO	S...G.....G...S.....	697	
TTH PRO	K.....V.....	700	

FIGURE 9C

MAJORITY	[SEQ ID NO:159]	SF PKVRAWI EKTLEEGRRRGYVETLFGRRRYVPDLNARVKSUREAAERMAFNMPVGGTAADLMKLLAMVKL	768
TAQ PRO	[SEQ ID NO:157]	.....E.....	767
TFL PRO	[SEQ ID NO:158]	.....G.....Y.....R.....	770
TTH PRO	[SEQ ID NO:1]	.....K.....	
MAJORITY FPRLXEMGARM LQVHDELVL EAPKXRAEXVAALAKEVMEGVYPLAVPLEVEVGXGEDWLSAKEX			
TAQ PRO	.....E.....E...A...R.....	.....I.....	833
TFL PROQ...L.....D...R.....W...Q.....L.....L.....	831
TTH PROR.....L.....QA...E...A...KA.....M.....G.....	835

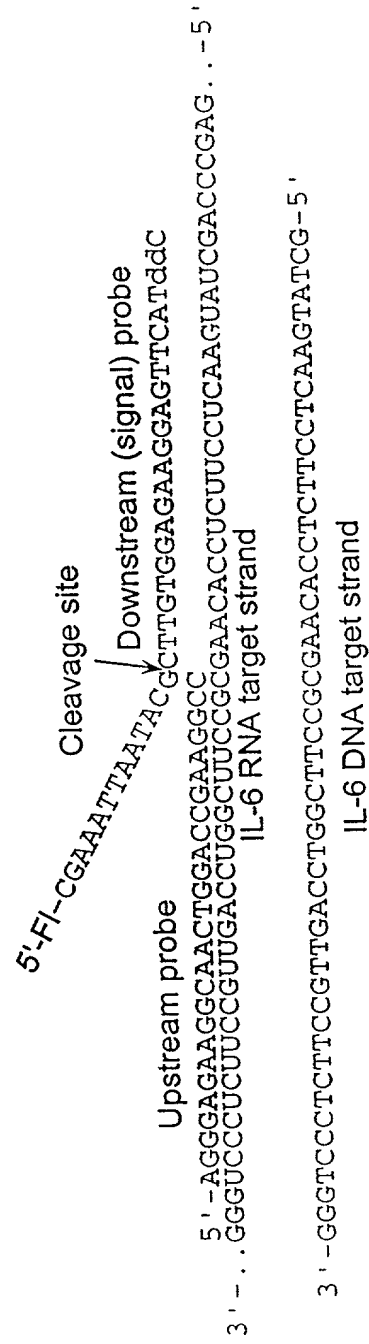


FIGURE 10

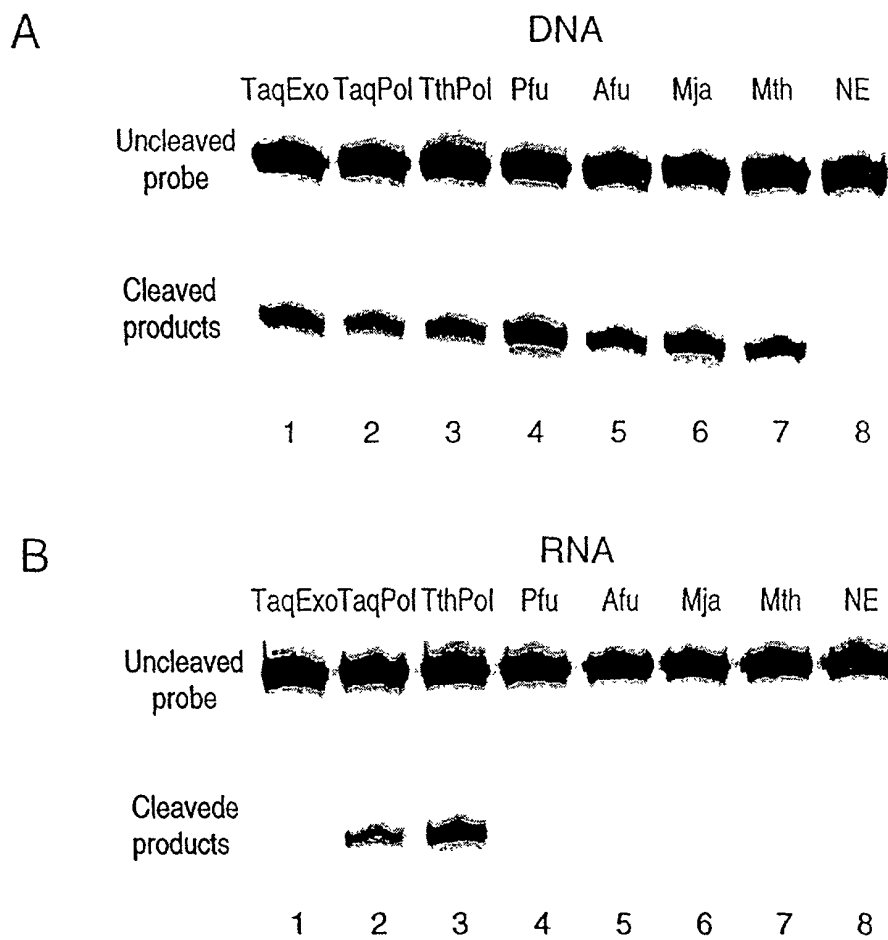


FIGURE 11

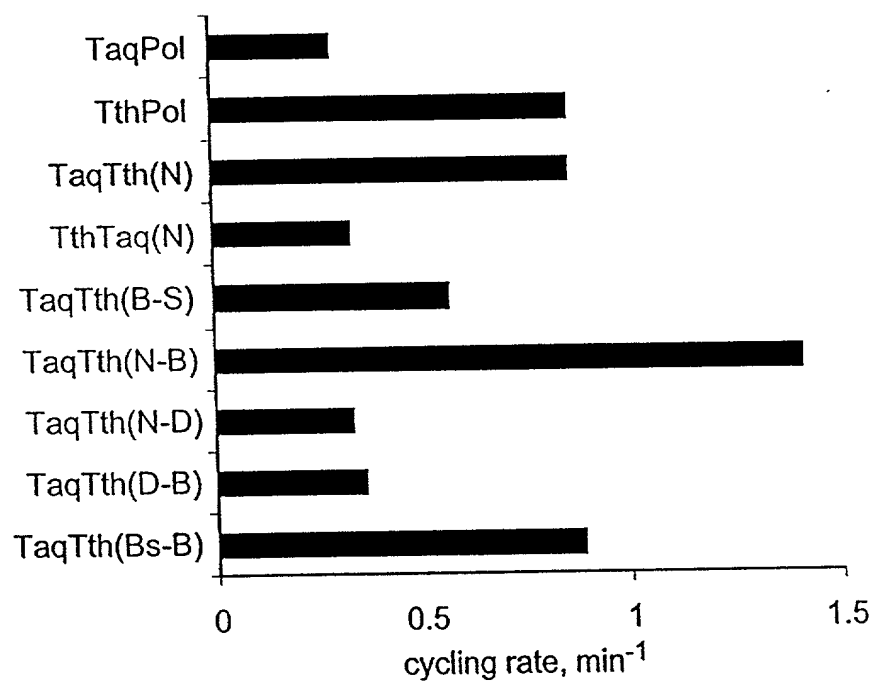


FIGURE 12

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Table 1. Demographic characteristics of the study population	
Age (years)	
18-24	100 (10.0)
25-34	150 (15.0)
35-44	200 (20.0)
45-54	250 (25.0)
55-64	300 (30.0)
65-74	350 (35.0)
75-84	400 (40.0)
85-94	450 (45.0)
95-104	500 (50.0)
Gender	
Male	500 (50.0)
Female	500 (50.0)
Ethnicity	
White	300 (30.0)
Black	200 (20.0)
Hispanic	100 (10.0)
Asian	50 (5.0)
Other	50 (5.0)
Education level	
High school or less	100 (10.0)
Some college	150 (15.0)
Bachelor's degree	200 (20.0)
Master's degree	250 (25.0)
PhD	300 (30.0)
Postdoctoral	350 (35.0)
Marital status	
Married	300 (30.0)
Single	200 (20.0)
Divorced	100 (10.0)
Widowed	50 (5.0)
Employment status	
Employed	300 (30.0)
Unemployed	200 (20.0)
Retired	100 (10.0)
On disability	50 (5.0)
Health insurance	
Medicare	300 (30.0)
Medicaid	200 (20.0)
Private	100 (10.0)
None	50 (5.0)
Annual income	
<\$10,000	100 (10.0)
\$10,000-\$19,999	150 (15.0)
\$20,000-\$29,999	200 (20.0)
\$30,000-\$39,999	250 (25.0)
\$40,000-\$49,999	300 (30.0)
\$50,000-\$59,999	350 (35.0)
\$60,000-\$69,999	400 (40.0)
\$70,000-\$79,999	450 (45.0)
\$80,000-\$89,999	500 (50.0)
\$90,000-\$99,999	550 (55.0)
\$100,000+	600 (60.0)

[illegible]

FIGURE 13

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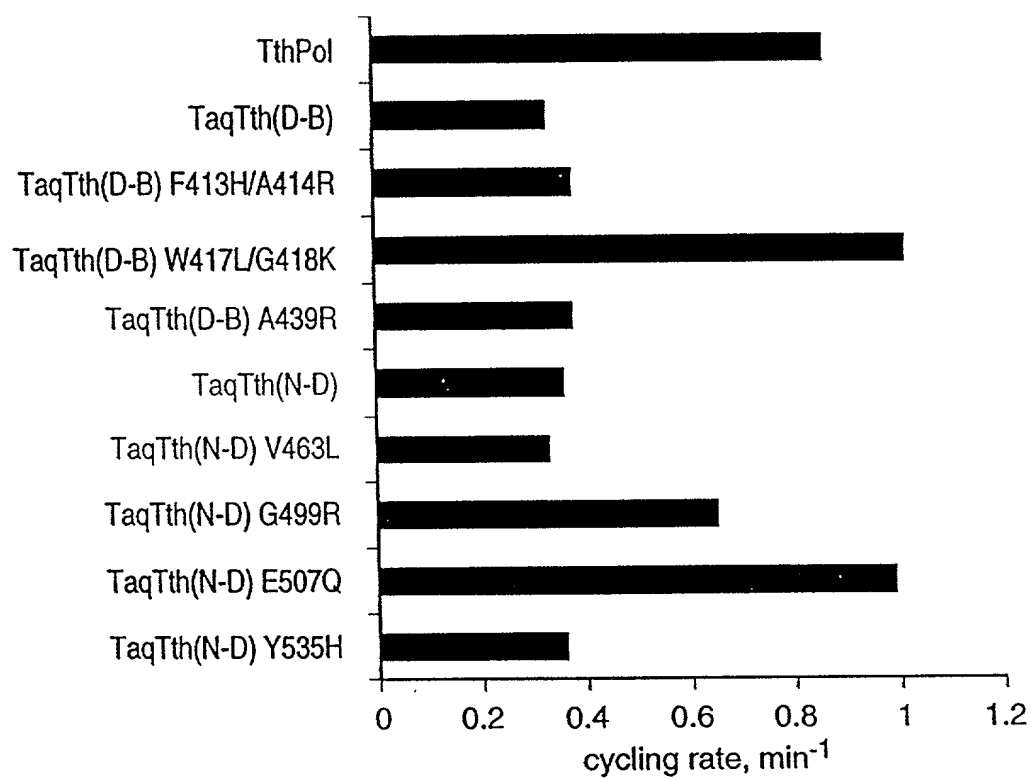


FIGURE 14

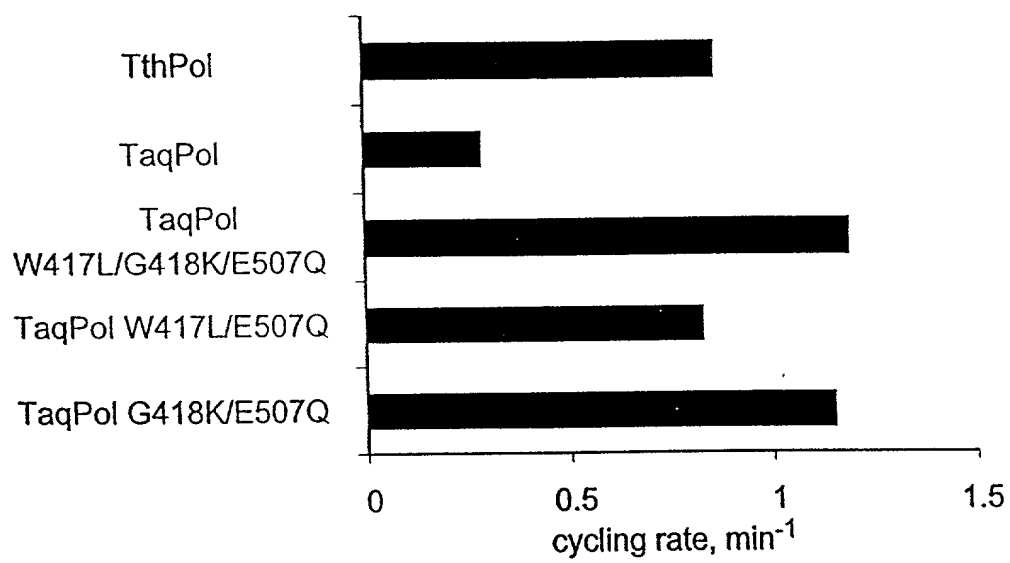


FIGURE 15

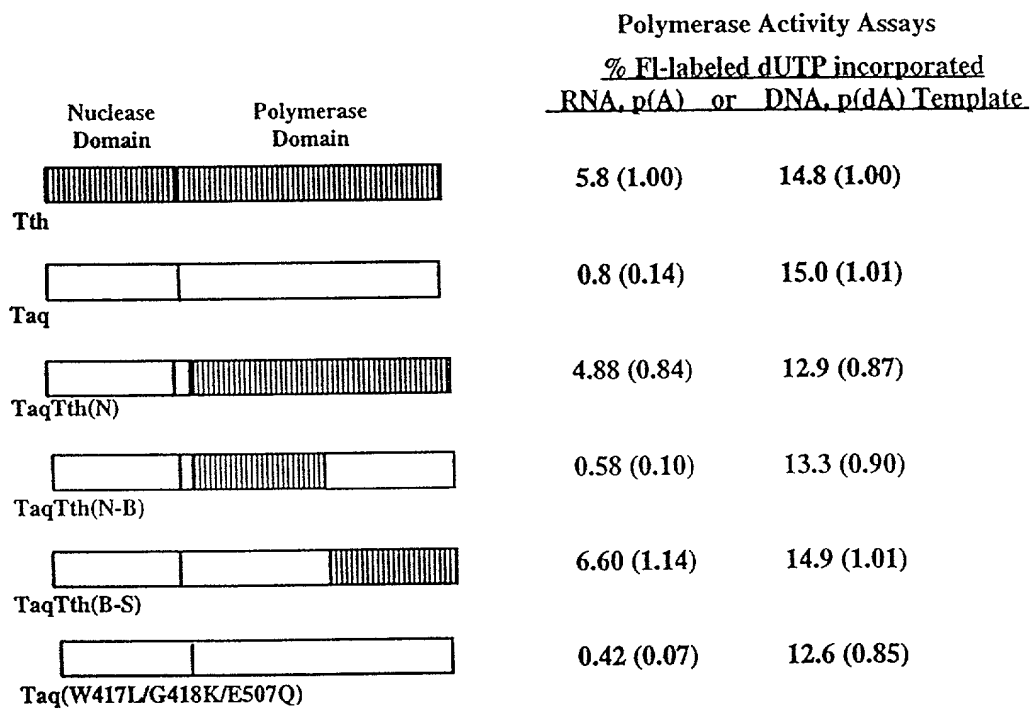


FIGURE 16

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FIGURE 17

(SEQ ID NO:224) ↓

ACGGAACGAGCGTCTTTG

UGCCUUGCUCGCAGAAAGCGACAGAGCGAGCG

↑ (SEQ ID NO: 225)

(SEQ ID NO: 223) ↓

Fl-C₆H₄-cy3

TCTCGCTCGC

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(SEQ ID NO: 224)

↓

ACGGAACGAGCGTCTTTG

TGCCTTGCTCGCAGAAAGCGACAGAGCGAGCG

↑ (SEQ ID NO: 226)

(SEQ ID NO: 223)

↓

Fl-C_{GCT} cy3 TCTCGCTCGC

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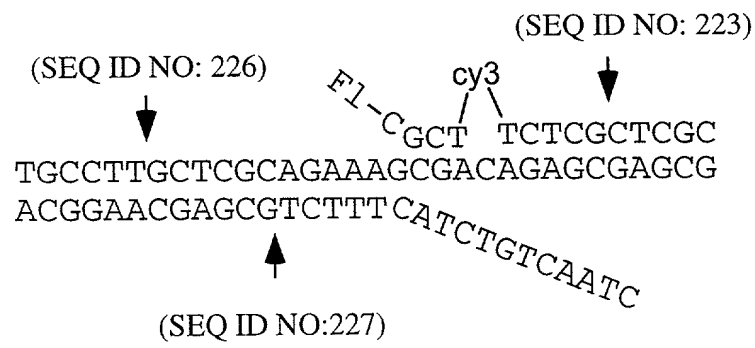


FIGURE 18C

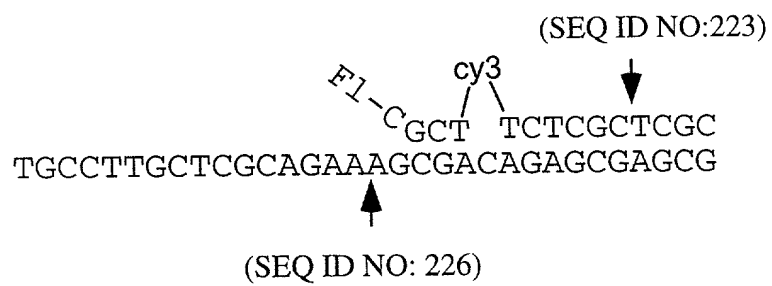


FIGURE 18D

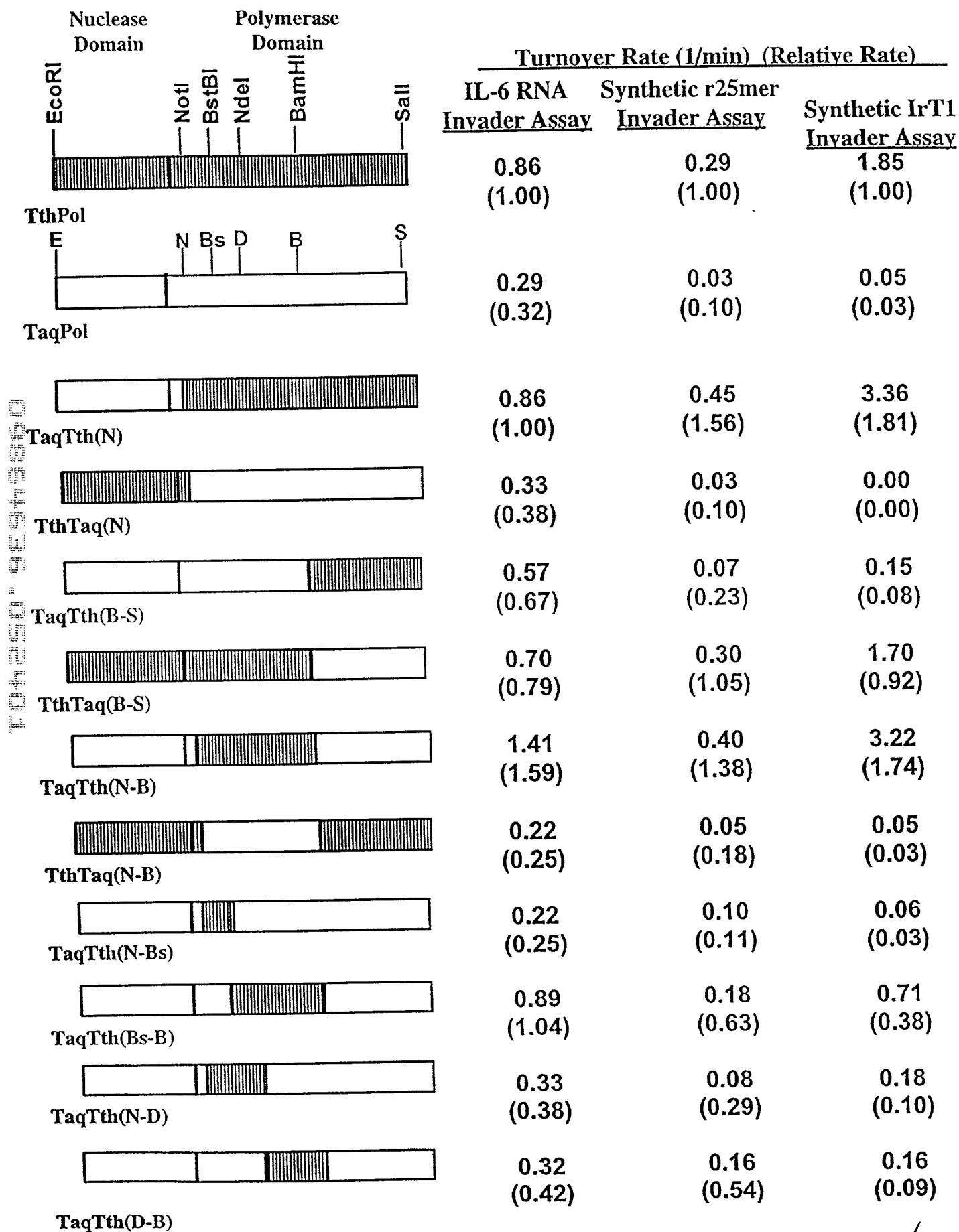


FIGURE 19

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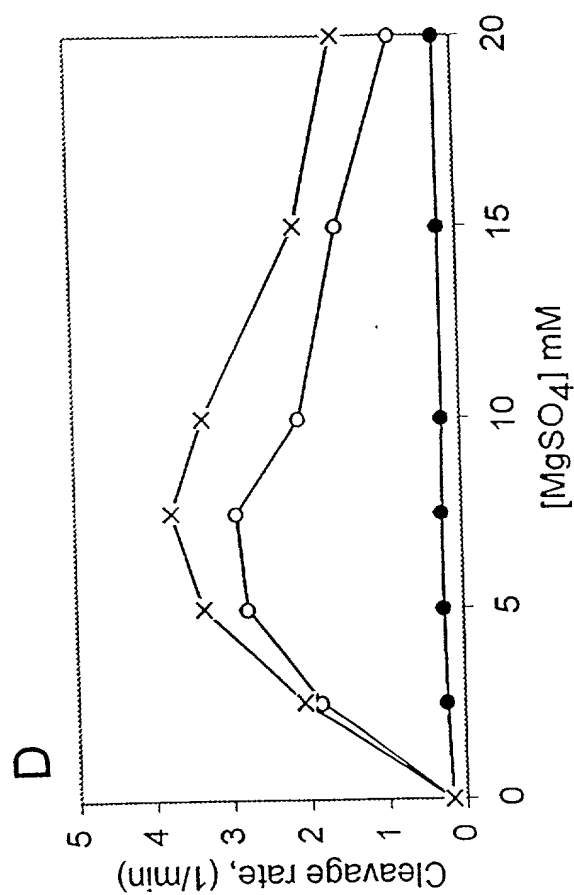
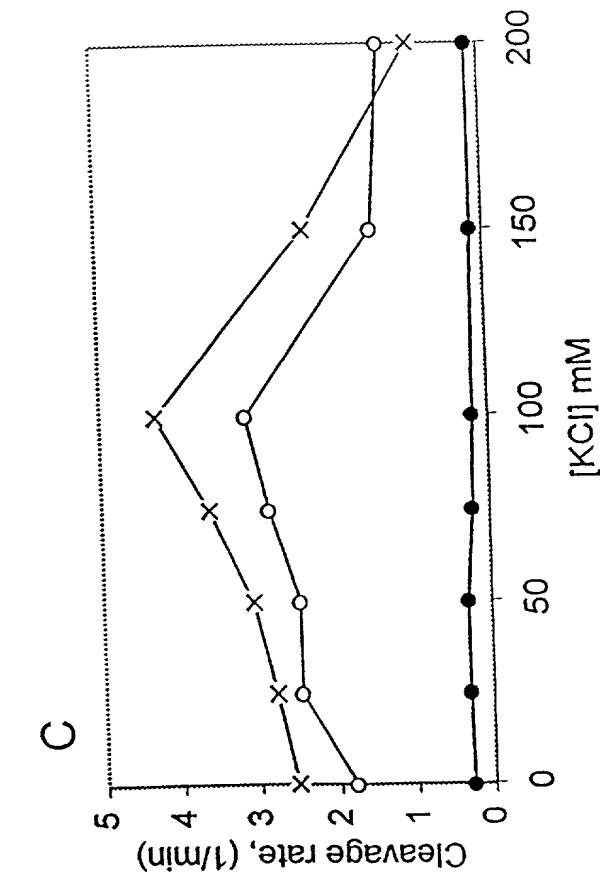
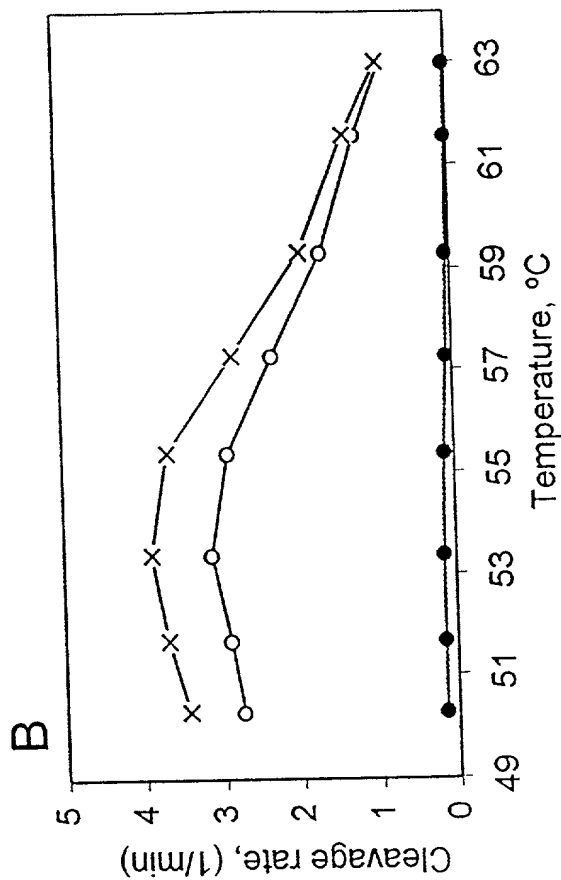
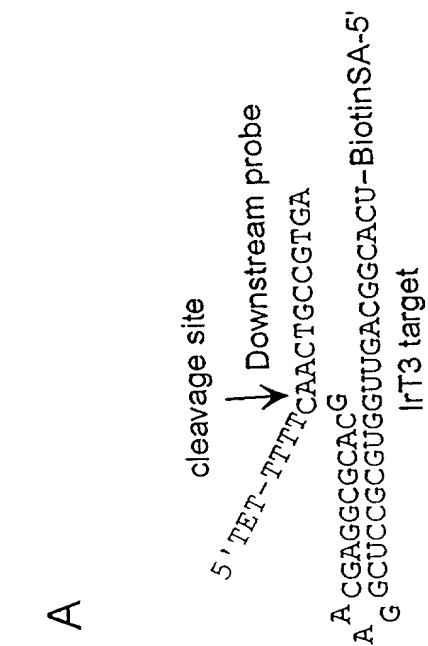


FIGURE 20

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FIGURE 21

A

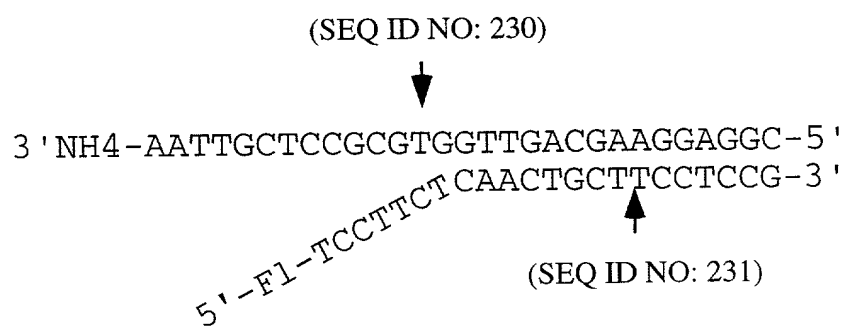
5'-tet-TTTTCAACTGCCGTGA
 A CGAGGCGCACG
 A GCTCCGCGTGGTTGACGGCACT

B

5'-tet-TTTTCAACTGCCGTGA
 A CGAGGCGCACG
 A GCUCCGCGUGGUUGACGGCACU-BiotinSA-5'

FIGURE 22

A



B



Spectrophotometric	
Wavelength (nm)	Extinction coefficient
215	14,000
225	14,000
235	14,000
245	14,000
255	14,000
265	14,000
275	14,000
285	14,000
295	14,000
305	14,000
315	14,000
325	14,000
335	14,000
345	14,000
355	14,000
365	14,000
375	14,000
385	14,000
395	14,000
405	14,000
415	14,000
425	14,000
435	14,000
445	14,000
455	14,000
465	14,000
475	14,000
485	14,000
495	14,000
505	14,000
515	14,000
525	14,000
535	14,000
545	14,000
555	14,000
565	14,000
575	14,000
585	14,000
595	14,000
605	14,000
615	14,000
625	14,000
635	14,000
645	14,000
655	14,000
665	14,000
675	14,000
685	14,000
695	14,000
705	14,000
715	14,000
725	14,000
735	14,000
745	14,000
755	14,000
765	14,000
775	14,000
785	14,000
795	14,000
805	14,000
815	14,000
825	14,000
835	14,000
845	14,000
855	14,000
865	14,000
875	14,000
885	14,000
895	14,000
905	14,000
915	14,000
925	14,000
935	14,000
945	14,000
955	14,000
965	14,000
975	14,000
985	14,000
995	14,000

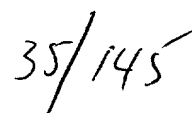


FIGURE 24

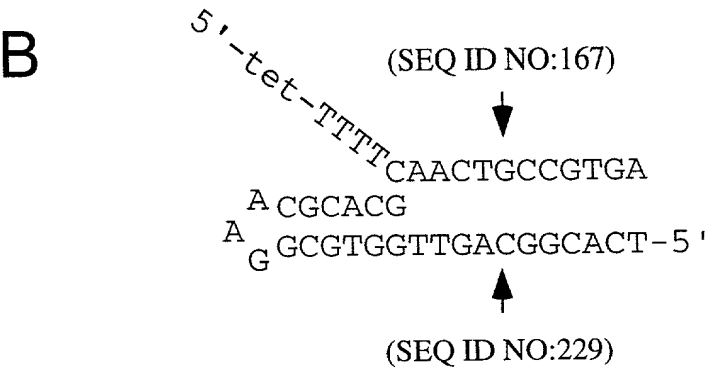
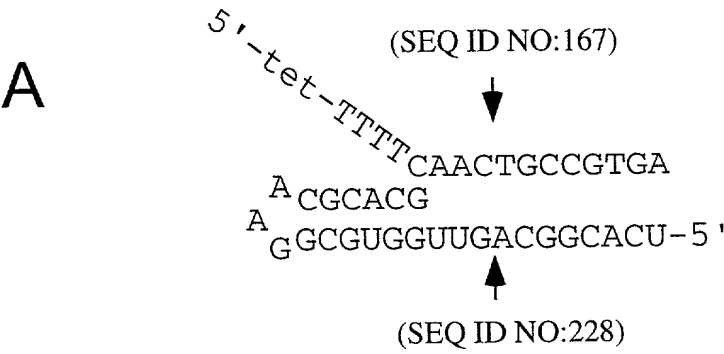


FIGURE 25

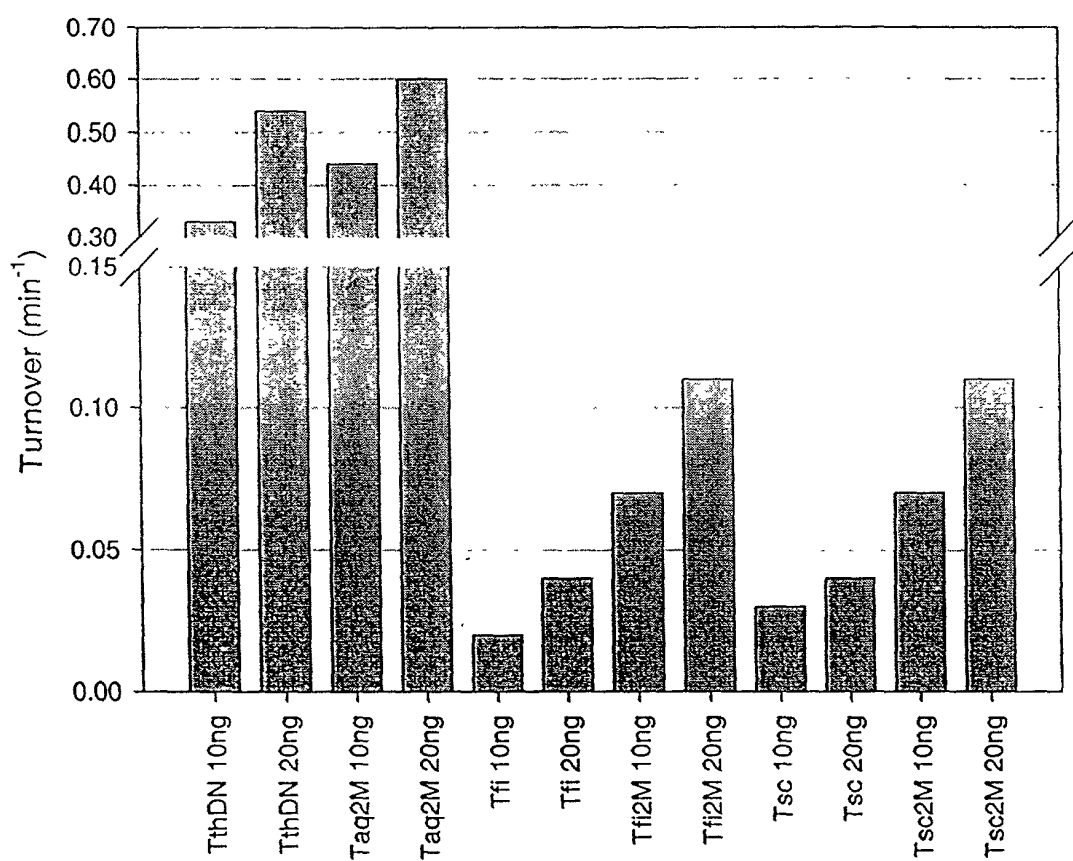


FIGURE 26

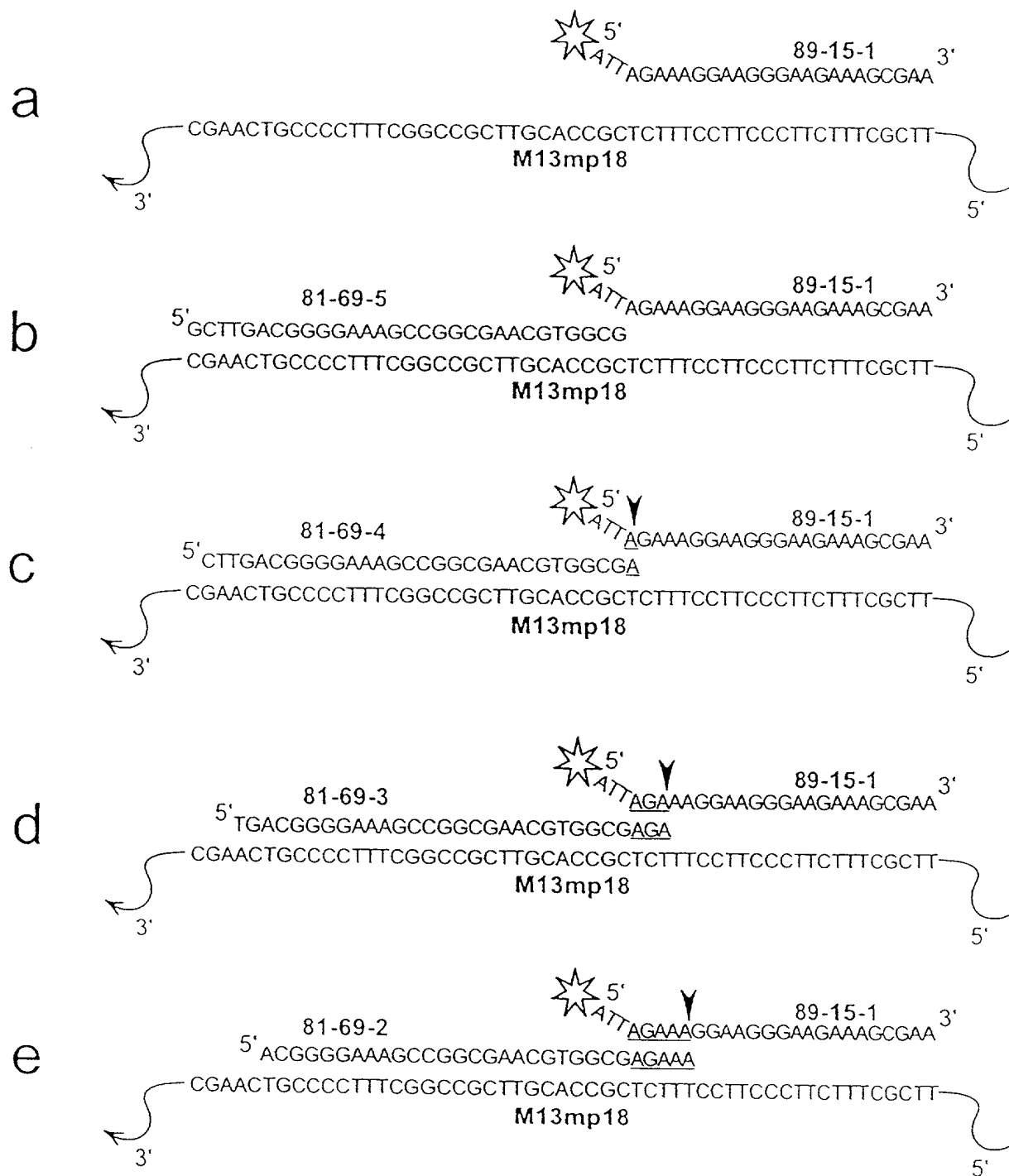
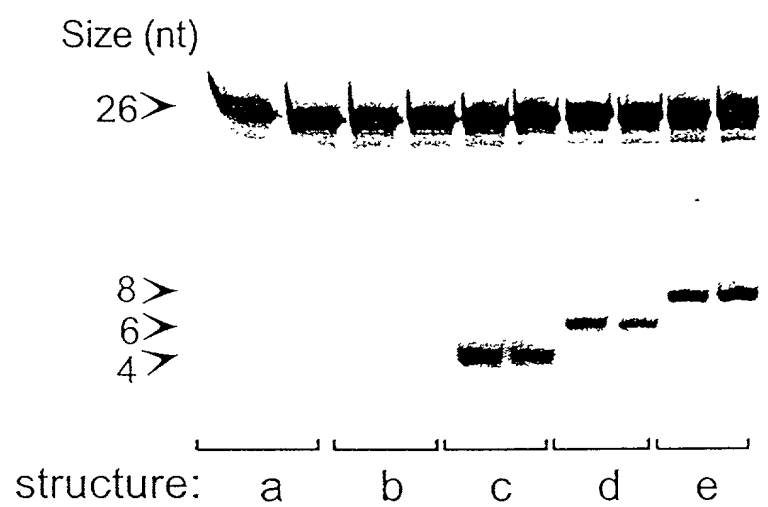


FIGURE 27



1990-1991		1991-1992		1992-1993		1993-1994		1994-1995		1995-1996		1996-1997		1997-1998		1998-1999		1999-2000		2000-2001		2001-2002		2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-2010		2010-2011		2011-2012		2012-2013		2013-2014		2014-2015		2015-2016		2016-2017		2017-2018		2018-2019		2019-2020		2020-2021		2021-2022		2022-2023		2023-2024		2024-2025		2025-2026		2026-2027		2027-2028		2028-2029		2029-2030		2030-2031		2031-2032		2032-2033		2033-2034		2034-2035		2035-2036		2036-2037		2037-2038		2038-2039		2039-2040		2040-2041		2041-2042		2042-2043		2043-2044		2044-2045		2045-2046		2046-2047		2047-2048		2048-2049		2049-2050		2050-2051		2051-2052		2052-2053		2053-2054		2054-2055		2055-2056		2056-2057		2057-2058		2058-2059		2059-2060		2060-2061		2061-2062		2062-2063		2063-2064		2064-2065		2065-2066		2066-2067		2067-2068		2068-2069		2069-2070		2070-2071		2071-2072		2072-2073		2073-2074		2074-2075		2075-2076		2076-2077		2077-2078		2078-2079		2079-2080		2080-2081		2081-2082		2082-2083		2083-2084		2084-2085		2085-2086		2086-2087		2087-2088		2088-2089		2089-2090		2090-2091		2091-2092		2092-2093		2093-2094		2094-2095		2095-2096		2096-2097		2097-2098		2098-2099		2099-2100		2100-2101		2101-2102		2102-2103		2103-2104		2104-2105		2105-2106		2106-2107		2107-2108		2108-2109		2109-2110		2110-2111		2111-2112		2112-2113		2113-2114		2114-2115		2115-2116		2116-2117		2117-2118		2118-2119		2119-2120		2120-2121		2121-2122		2122-2123		2123-2124		2124-2125		2125-2126		2126-2127		2127-2128		2128-2129		2129-2130		2130-2131		2131-2132		2132-2133		2133-2134		2134-2135		2135-2136		2136-2137		2137-2138		2138-2139		2139-2140		2140-2141		2141-2142		2142-2143		2143-2144		2144-2145		2145-2146		2146-2147		2147-2148		2148-2149		2149-2150		2150-2151		2151-2152		2152-2153		2153-2154		2154-2155		2155-2156		2156-2157		2157-2158		2158-2159		2159-2160		2160-2161		2161-2162		2162-2163		2163-2164		2164-2165		2165-2166		2166-2167		2167-2168		2168-2169		2169-2170		2170-2171		2171-2172		2172-2173		2173-2174		2174-2175		2175-2176		2176-2177		2177-2178		2178-2179		2179-2180		2180-2181		2181-2182		2182-2183		2183-2184		2184-2185		2185-2186		2186-2187		2187-2188		2188-2189		2189-2190		2190-2191		2191-2192		2192-2193		2193-2194		2194-2195		2195-2196		2196-2197		2197-2198		2198-2199		2199-2200		2200-2201		2201-2202		2202-2203		2203-2204		2204-2205		2205-2206		2206-2207		2207-2208		2208-2209		2209-2210		2210-2211		2211-2212		2212-2213		2213-2214		2214-2215		2215-2216		2216-2217	
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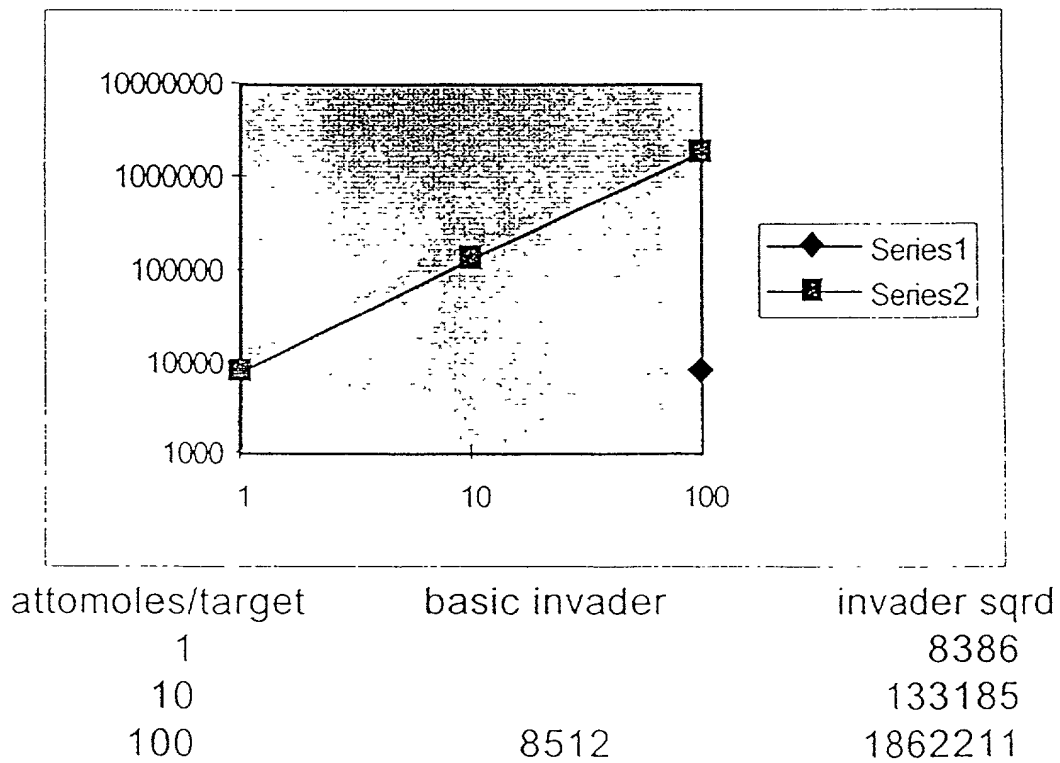
1 2 3 4 5 6 7 8 9 10 11

<1: uncut

<1: cut

<2: uncut

<2: cut



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FIGURE 29

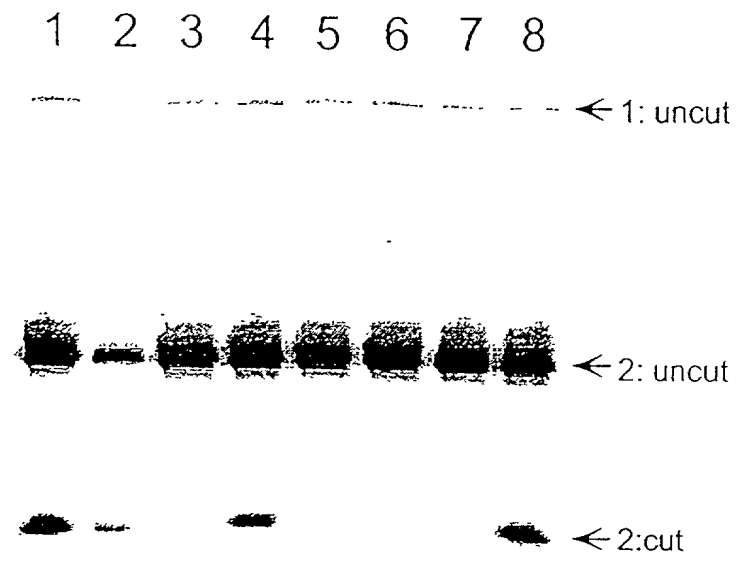


FIGURE 30

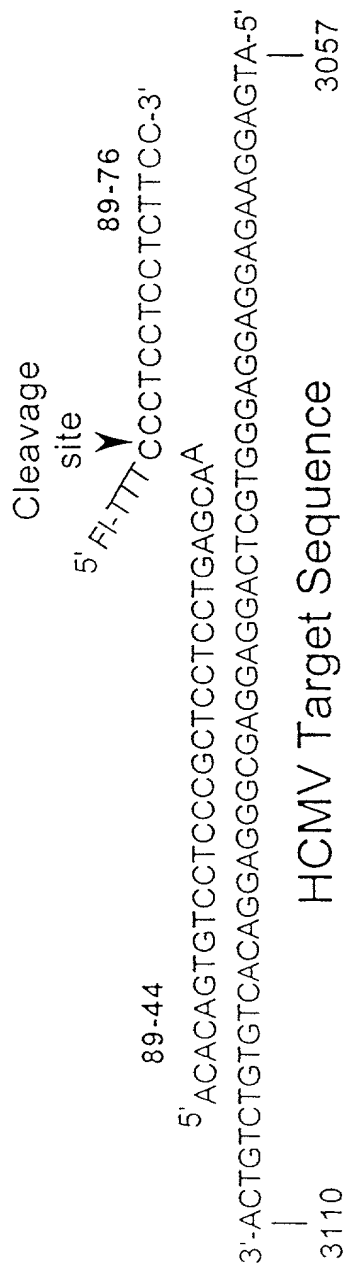


FIGURE 31

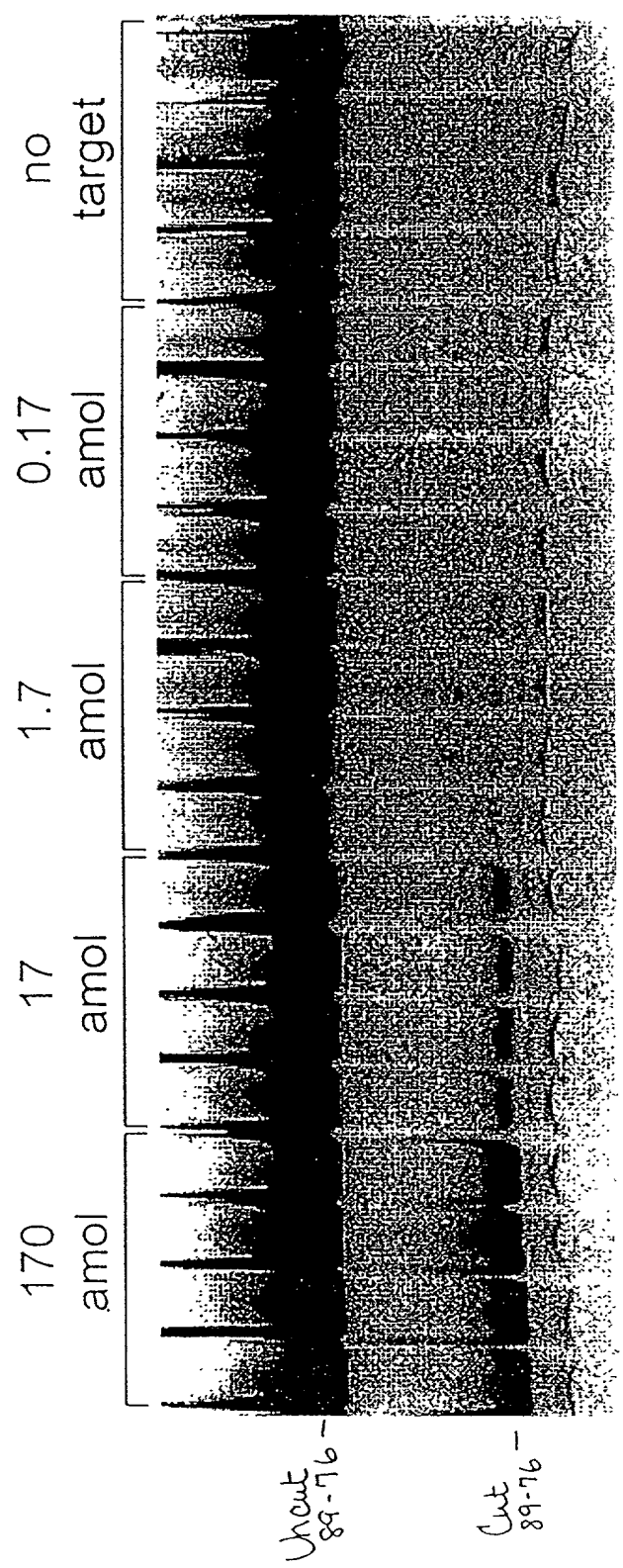
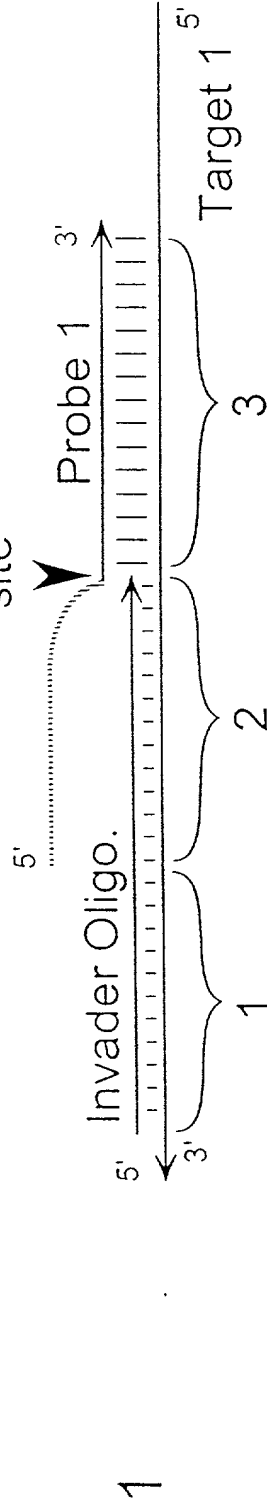


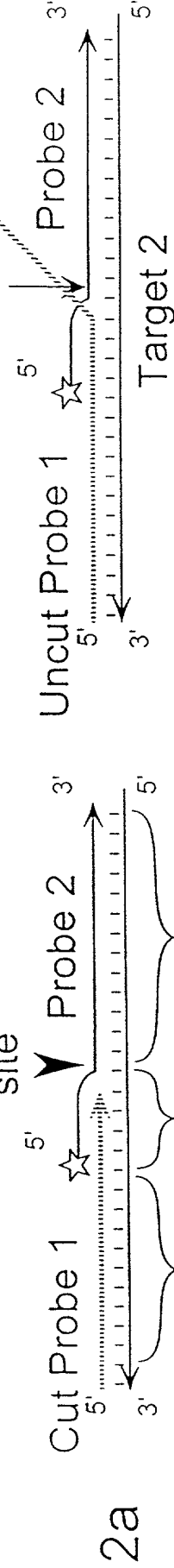
FIGURE 32

Cleavage site

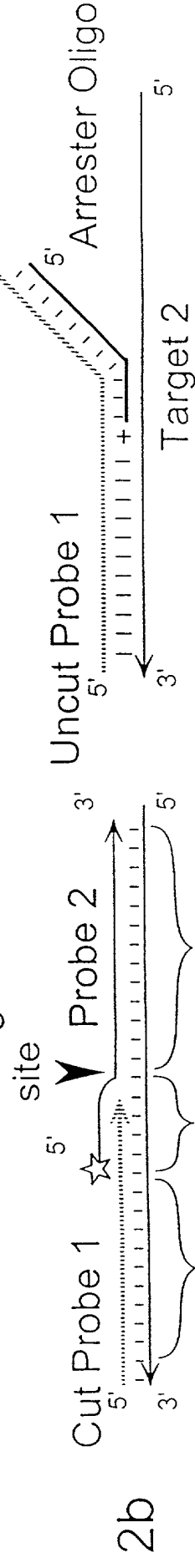


Background cleavage site

Cleavage site



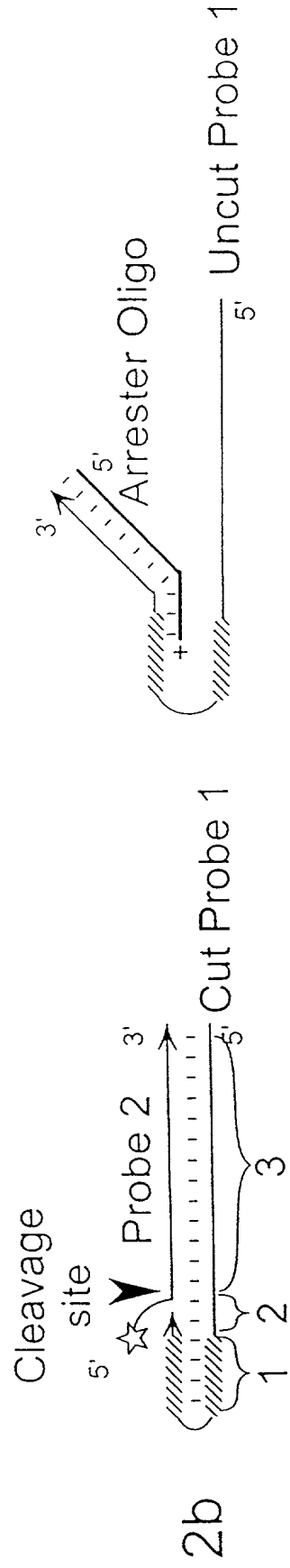
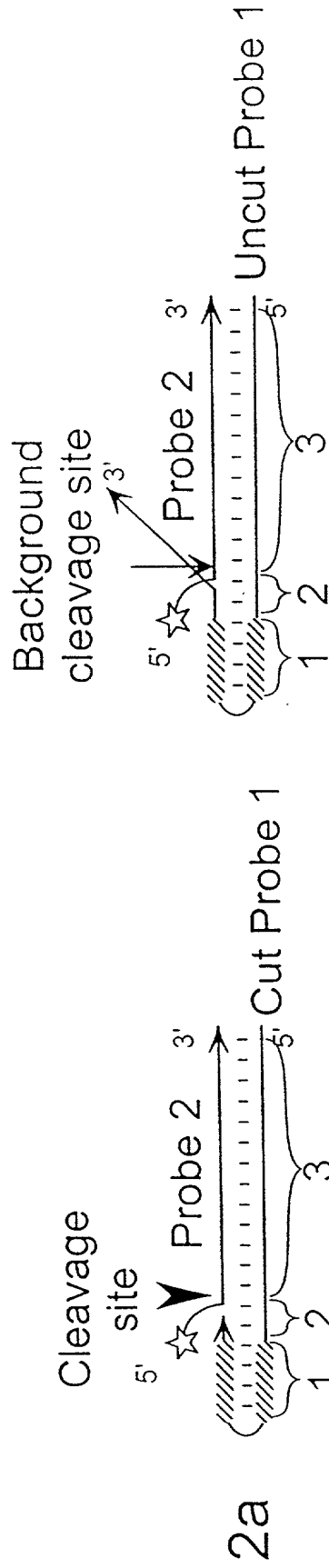
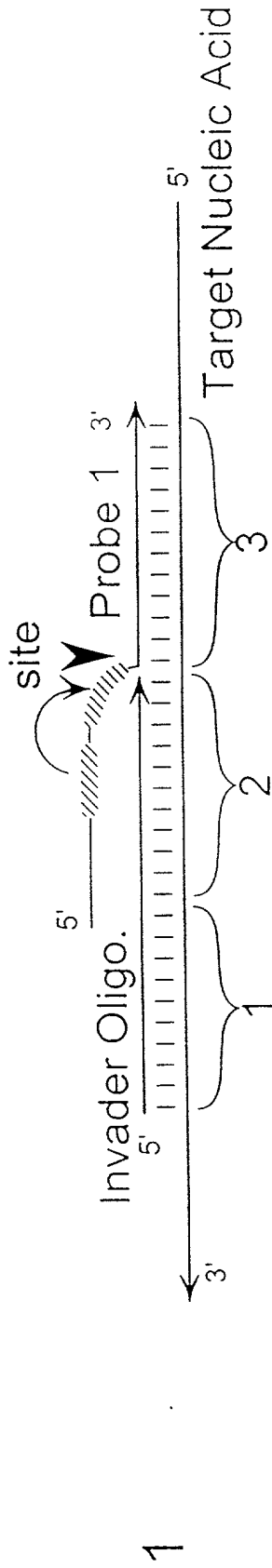
Cleavage site



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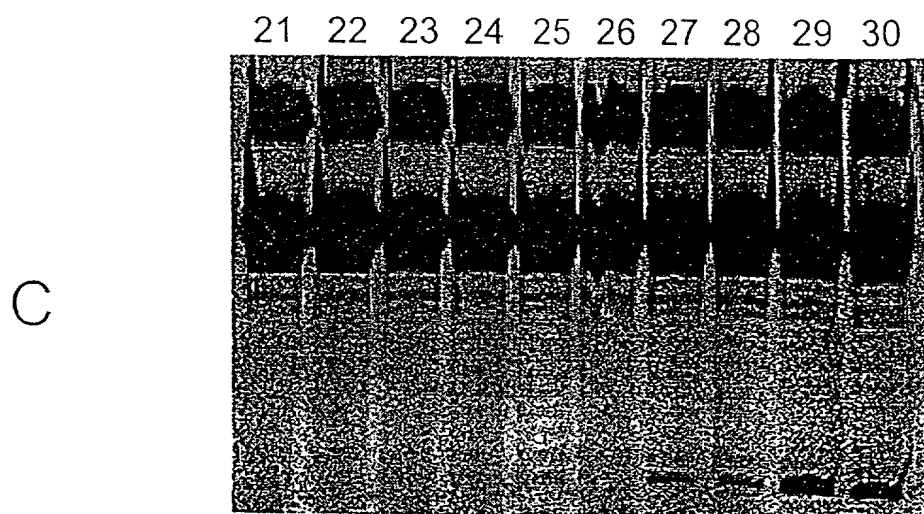
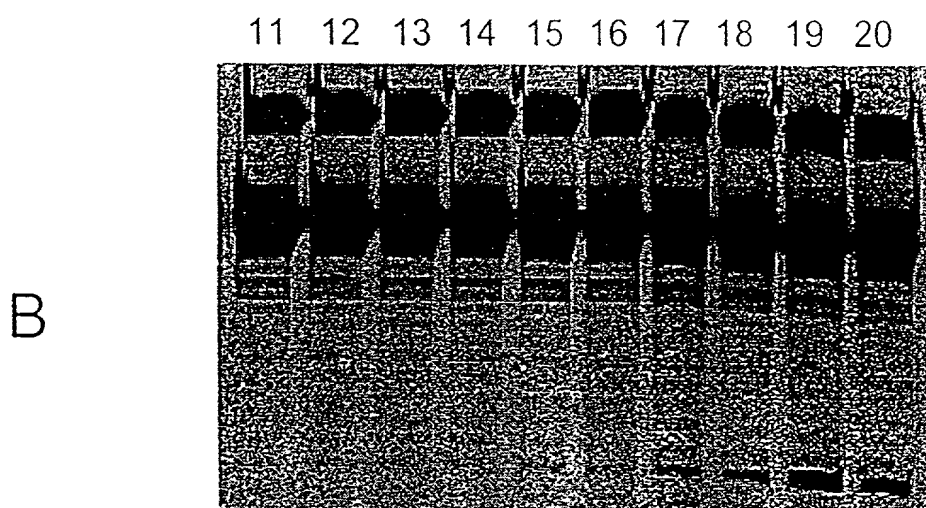
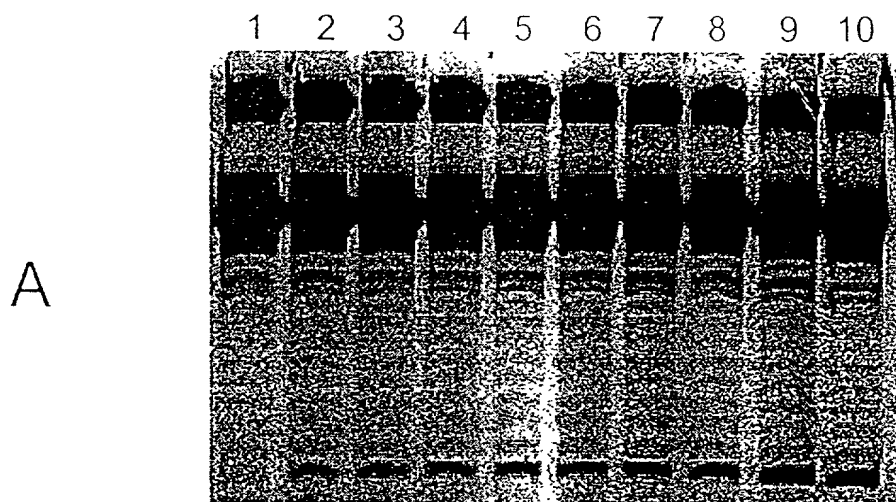
FIGURE 33

Cleavage



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FIGURE 34



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T04250" 9E949360

FIGURE 35A

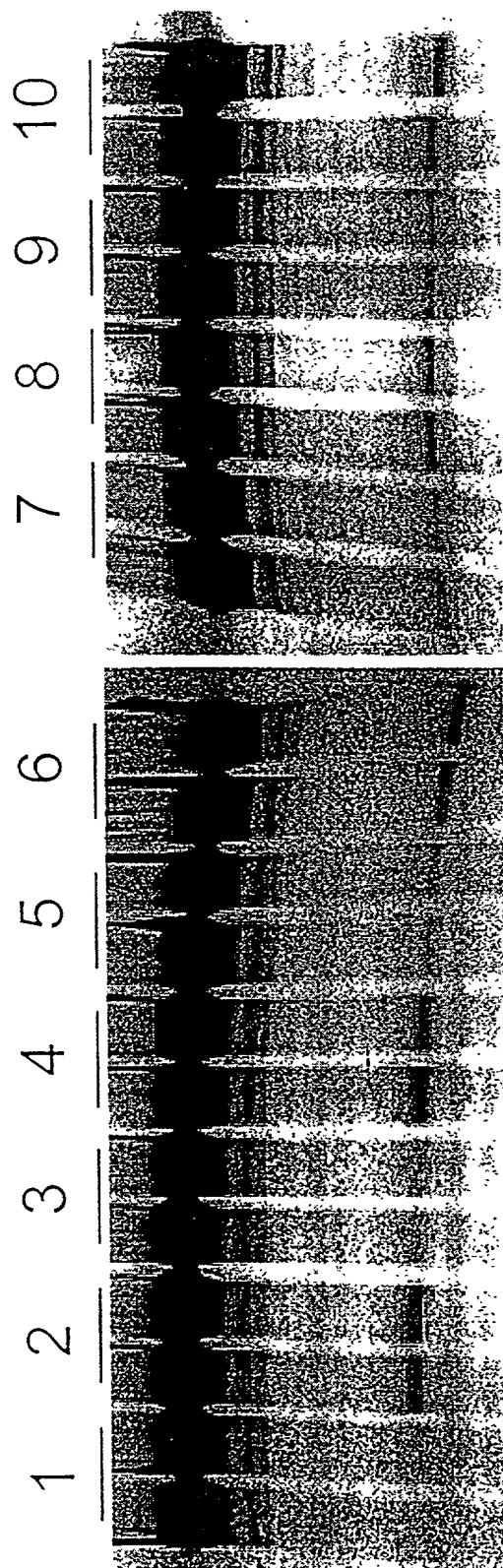


FIGURE 35B

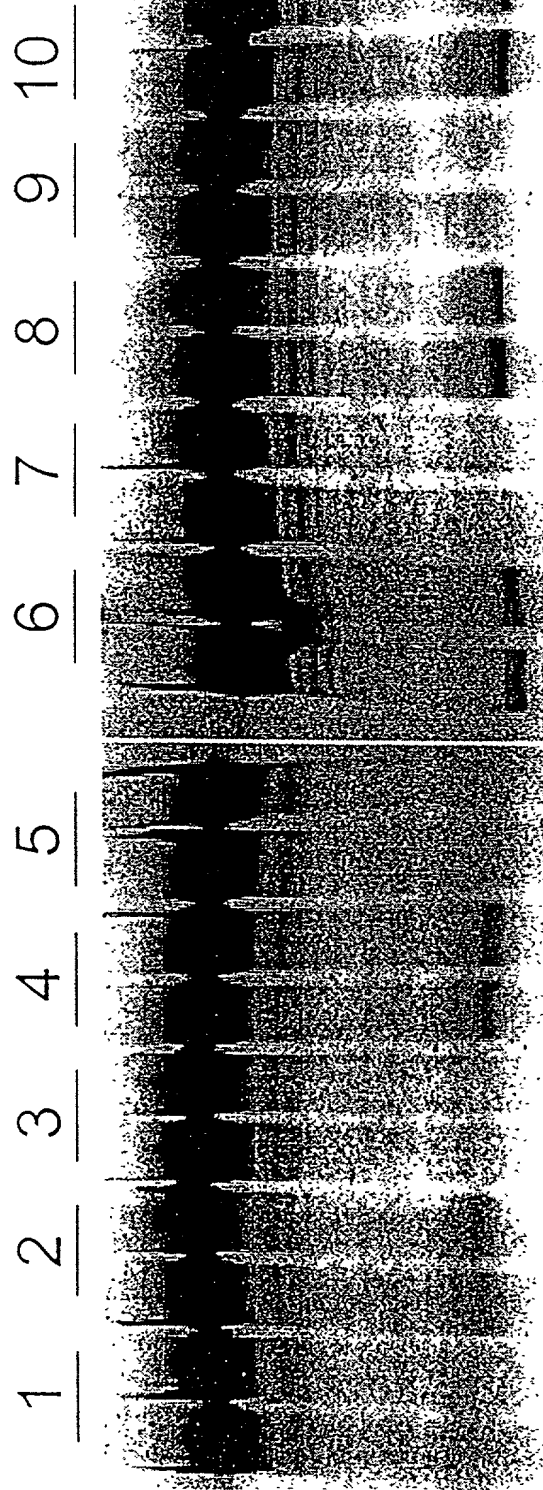


FIGURE 35C

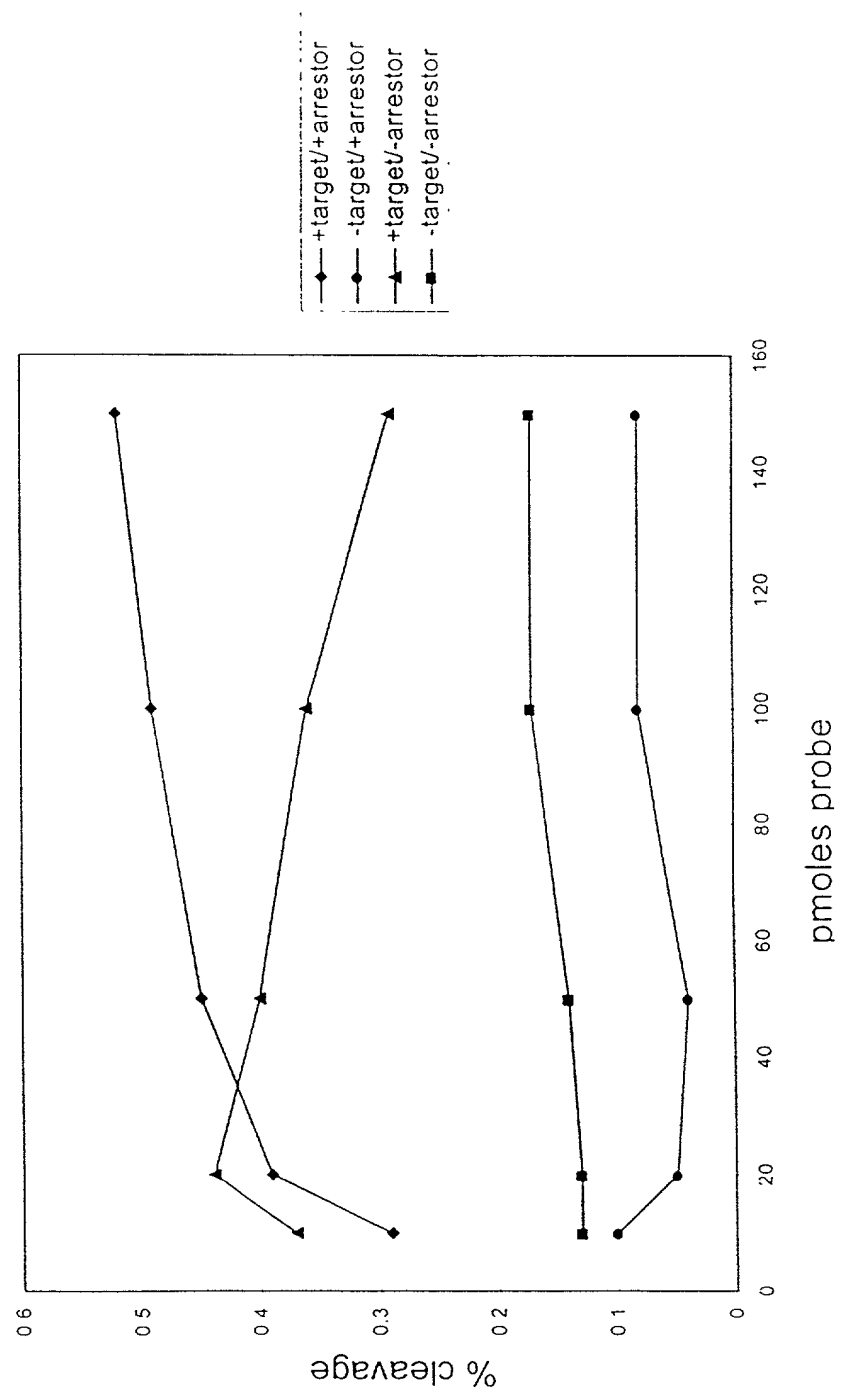


FIGURE 36A

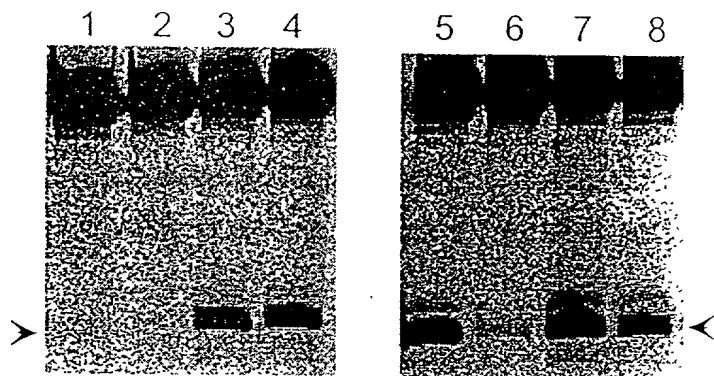


FIGURE 36B

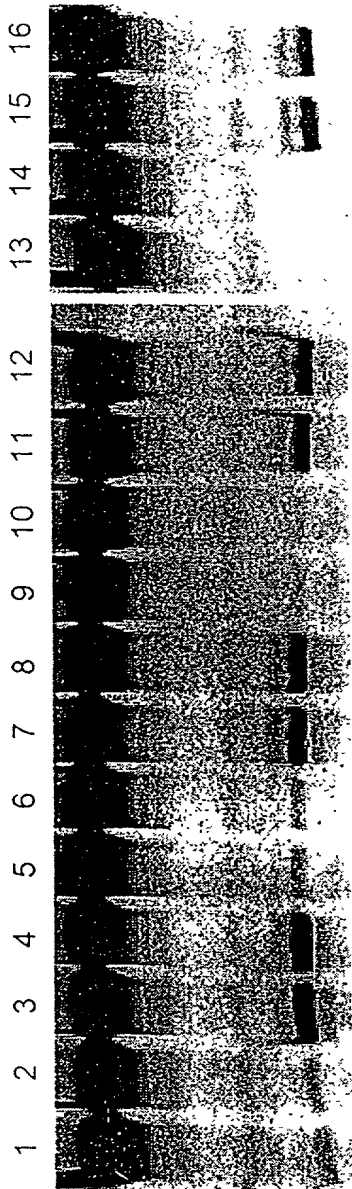
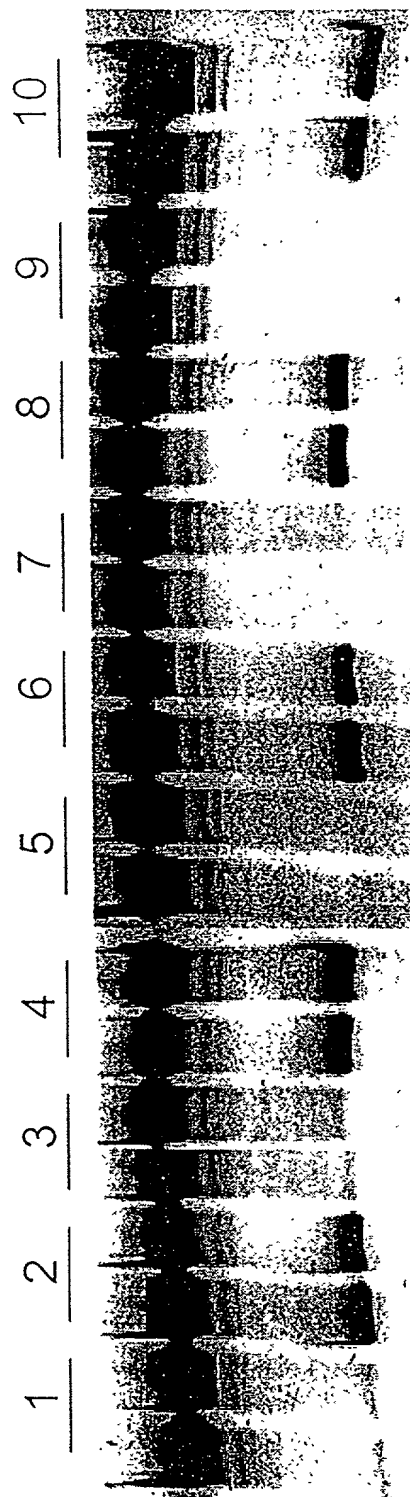
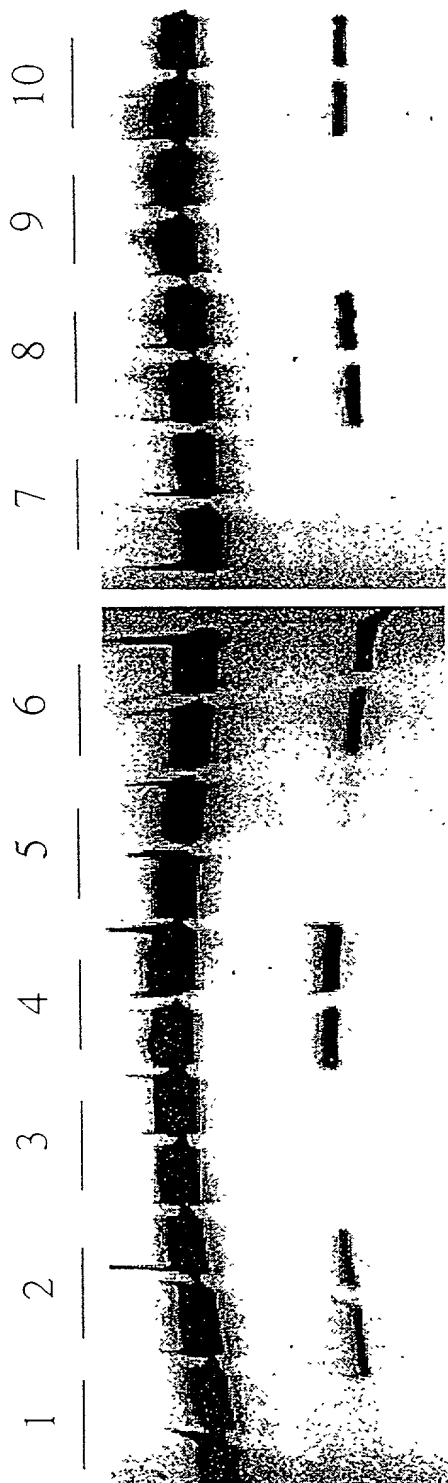


FIGURE 37A



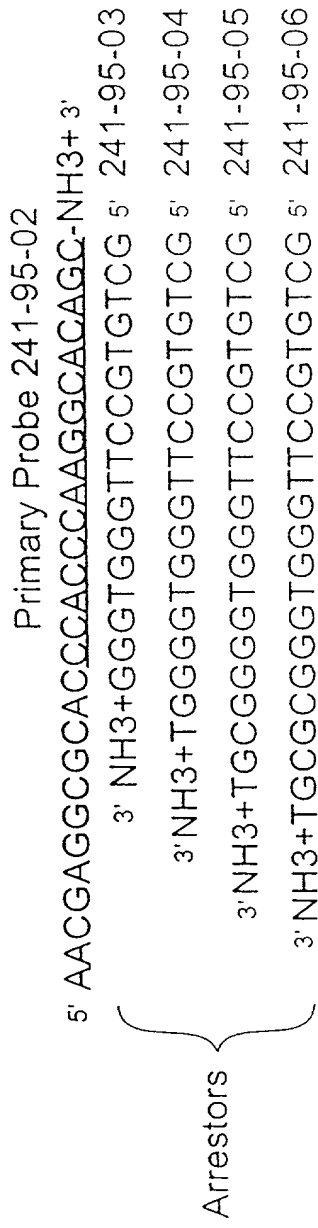
10-250" 9E949860

FIGURE 37B



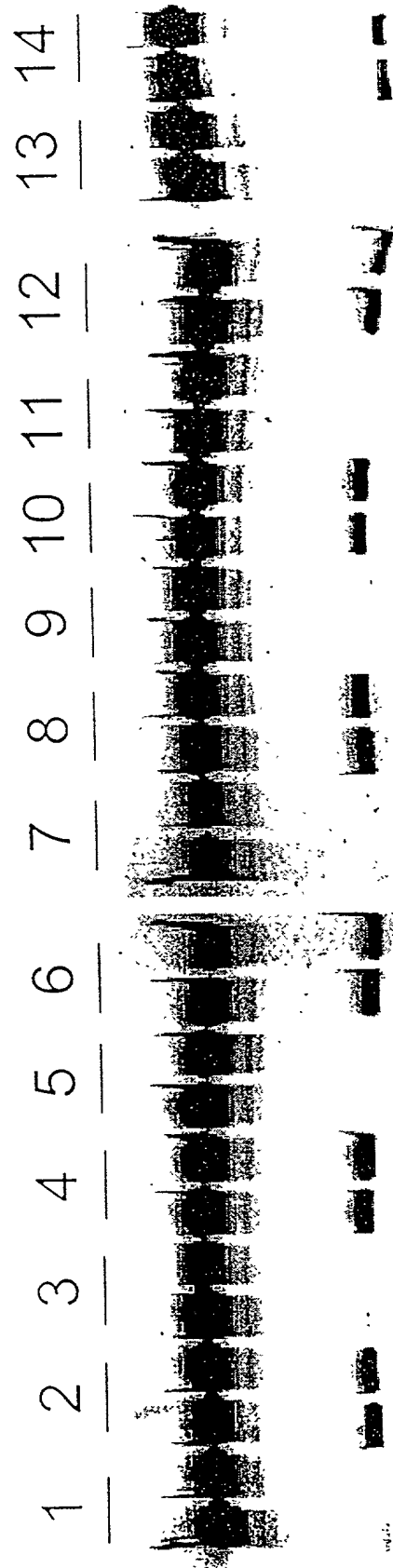
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FIGURE 37C



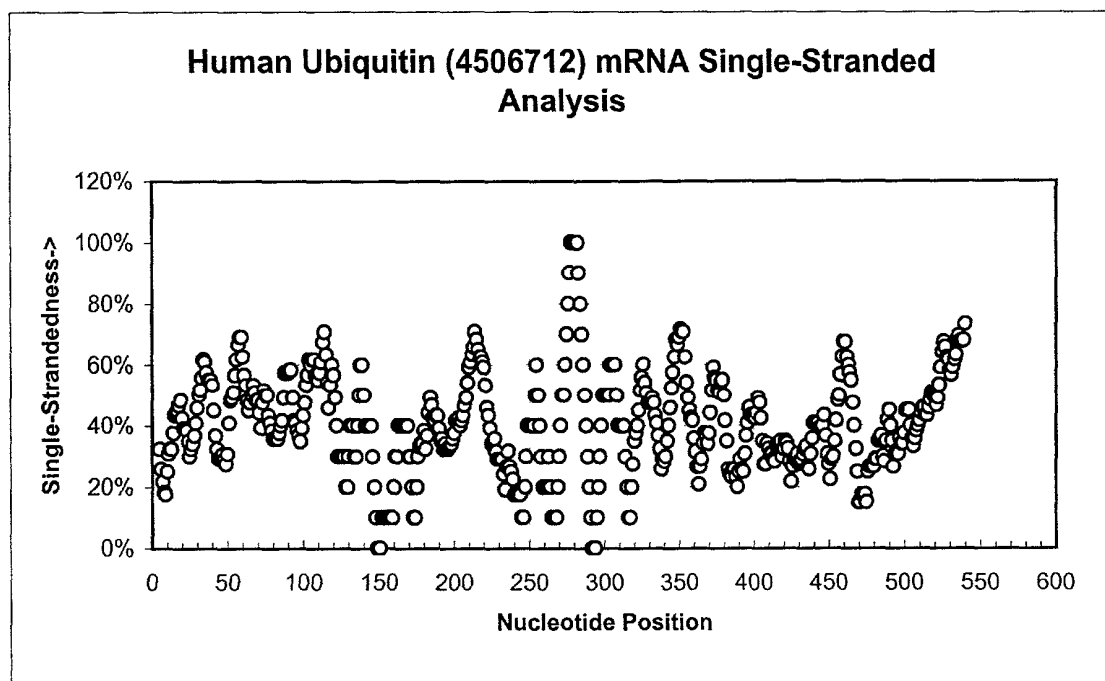
704250" 9E9H9860

FIGURE 38



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Figure 39



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FIGURE 40

	1	2	3	4	5	6	7	8	9	10	11	12
A	Negative Control	No Target Control	Sample 1	Sample 1	Sample 9	Sample 9	Sample 17	Sample 17	Sample 25	Sample 25	Sample 33	Sample 33
B	No Target Control	No Target Control	Sample 2	Sample 2	Sample 10	Sample 10	Sample 18	Sample 18	Sample 26	Sample 26	Sample 34	Sample 34
C	Standard 1	Standard 1	Sample 3	Sample 3	Sample 11	Sample 11	Sample 19	Sample 19	Sample 27	Sample 27	Sample 35	Sample 35
D	Standard 2	Standard 2	Sample 4	Sample 4	Sample 12	Sample 12	Sample 20	Sample 20	Sample 28	Sample 28	Sample 36	Sample 36
E	Standard 3	Standard 3	Sample 5	Sample 5	Sample 13	Sample 13	Sample 21	Sample 21	Sample 29	Sample 29	Sample 37	Sample 37
F	Standard 4	Standard 4	Sample 6	Sample 6	Sample 14	Sample 14	Sample 22	Sample 22	Sample 30	Sample 30	Sample 38	Sample 38
G	Standard 5	Standard 5	Sample 7	Sample 7	Sample 15	Sample 15	Sample 23	Sample 23	Sample 31	Sample 31	Sample 39	Sample 39
H	Standard 6	Standard 6	Sample 8	Sample 8	Sample 16	Sample 16	Sample 24	Sample 24	Sample 32	Sample 32	Sample 40	Sample 40

FIGURE 41

hUbiquitin		
Primary probe	5' -CGC CGA GAT CAC CTT TAC ATT TTC TAT CGT NH2-3'	(SEQ ID NO:169)
INVADER oligonucleotide	5' -CCT TCC TTA TCC TGG ATC TTG GCA -3'	(SEQ ID NO:170)
ARRESTOR oligonucleotide	5'-ACG ATA GAA AAT GTA AAG GTG ATC-3'	(SEQ ID NO:171)
FRET Probe	5'-RED-CTC (Z28) TTC TCA GTG CG-3'	(SEQ ID NO:172)
Secondary target	5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'	(SEQ ID NO:173)
m/r Ubiquitin, mouse (288C, 516C, 744C, 972C), rat (247C, 475C, 703C, 931C)		
Primary probe	5'-CCG CCG AGA TCA CGG ATG TTG TAA TCA GAG A-NH2-3'	(SEQ ID NO:174)
INVADER oligonucleotide 1	5'-GTG CAG GGT TGA CTC CTT CTC-3'	(SEQ ID NO:175)
INVADER oligonucleotide 2	5'-GTG CAG GGT TGA CTC TTT CTC-3'	(SEQ ID NO:176)
INVADER oligonucleotide 3	5'-GTG CAG GGT CGA CTC TTT CTC-3'	(SEQ ID NO:177)
ARRESTOR oligonucleotide	5'-TCT CTG ATT ACA ACA TCC GTG ATC T-3'	(SEQ ID NO:178)
FRET Probe	5'-RED-CTC (Z28) TTC TCA GTG CG-3'	(SEQ ID NO:172)
Secondary target	5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'	(SEQ ID NO:173)
r/m GAPDH, rat (150C), mouse(166C)		
Primary probe	5'-CGC CGA GAT CAC GTA GTT GAG GTC AAT GA-NH2-3'	(SEQ ID NO:179)
INVADER oligonucleotide	5'-GAA TCA TAC TCG AAC ATG TAG ACC ATC-3'	(SEQ ID NO:180)
ARRESTOR oligonucleotide	5'-TCA TTG ACC TCA ACT ACG TGA TCT-3'	(SEQ ID NO:181)
FRET Probe	5'-RED-CTC (Z28) TTC TCA GTG CG-3'	(SEQ ID NO:172)
Secondary target	5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'	(SEQ ID NO:173)
hGAPDH, 516C		
Primary probe	5'-CCG CCG AGA TCA CGA TGA TCT TGA GGC T-NH2-3'	(SEQ ID NO:182)
INVADER oligonucleotide	5'-TGG TGC AGG AGG CAT TGC TC-3'	(SEQ ID NO:183)
ARRESTOR oligonucleotide	5'-CAG CCT CAA GAT TAC CGT GAT CT-3'	(SEQ ID NO:184)
FRET Probe	5'-RED-CTC (Z28) TTC TCA GTG CG-3'	(SEQ ID NO:172)
Secondary target	5'-CGC AGT GAG AAT GAG GTG ATC TCG GCG GT-3'	(SEQ ID NO:173)

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hTGF-β		
Primary probe	5'-CCG TCA CGC CTC CTC CAC GGC TC -3'	(SEQ ID NO:185)
INVADER oligonucleotide	5'-AGG CGA AAG CCC TCA ATT TCC CA-3'	(SEQ ID NO:186)
Stacker	5'-AAC CAC TGC CGC ACA-3'	(SEQ ID NO:187)
ARRESTOR oligonucleotide	5'-GAG CCG TGG AGG AGG CG-3'	(SEQ ID NO:188)
FRET Probe	5'-FL-CAC-(Z28)-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hMCP-1		
Primary probe	5'-CCG TCA CGC CTC CTT CGG AGT TTG GG NH2 -3'	(SEQ ID NO:191)
INVADER oligonucleotide	5'-GGG TTG TGG AGT GAG TGT TCA AGT A -3'	(SEQ ID NO:192)
Stacker	NO STACKER	
ARRESTOR oligonucleotide	5'-GGG-AA-CTC-CGA-AGG- AGG-CG-3'	(SEQ ID NO:193)
FRET Probe	5'-FL-CAC-Z28-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hTNF-α		
Primary probe	5'-CCG TCA CGC CTC TCT GAC TGC CA NH2-3'	(SEQ ID NO:194)
INVADER oligonucleotide	5'-TTG TCA CTC GGG GTT CGA GAA GAT GAA-3'	(SEQ ID NO:195)
Stacker	5'-GGG CCA GAG GG-3'	(SEQ ID NO:196)
ARRESTOR oligonucleotide	5'-AGG CAG TCA GAG AGG CG-3'	(SEQ ID NO:197)
FRET Probe	5'-FL-CAC-Z28-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)
hIL-6		
Primary probe	5'-CCG TCA CGC CTC CTC ATT GAA TTNH2-3'	(SEQ ID NO:198)
INVADER oligonucleotide	5'-CCA AAA GTC CAG TGA TTT TCA CCA GGC AAG TA -3'	(SEQ ID NO:199)
Stacker	5'-CAG ATT GGA AGC ATC CAT CT-3'	(SEQ ID NO:200)
ARRESTOR oligonucleotide	5'-GAT TCA ATG AGG AGG AGG C-3'	(SEQ ID NO:201)
FRET Probe	5'-FL-CAC-(Z28)-TGC TTC GTG G-3'	(SEQ ID NO:189)
Secondary target	5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'	(SEQ ID NO:190)

hIL-1 β

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CAT CTG TTT AGG NH2-3'
5'-CAG GTC CTG GAA GGA GCA CTT A-3'
5'-GCC ATC AGC TTC TTT GTT CTT GTC ATC-3'
5'-GCC CTA AAC AGA TGG AGG CG-3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:202)
(SEQ ID NO:203)
(SEQ ID NO:204)
(SEQ ID NO:205)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-2

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC CAG TTG TAG NH2-3'
5'-AAA ATC ATC TGT AAA TCC AGC AGT AAA TGA -3'
5'-CTG TGT TTT CTT TGT AGA AC -3'
5'-CTA CAA CTG GAG GAG GC -3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:206)
(SEQ ID NO:207)
(SEQ ID NO:208)
(SEQ ID NO:209)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-8

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC TCA GTT CT-NH2-3'
5'-GTG TGG TCC ACT CTC AAT CAA -3'
5'-TTG ATA AAT TTG GGG TGG AAA GGT TTG GA-3'
5'-AGA ACT GAG AGG AGG CG-3'
5'-FL-CAC-(Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:210)
(SEQ ID NO:211)
(SEQ ID NO:619)
(SEQ ID NO:620)
(SEQ ID NO:189)
(SEQ ID NO:190)

hIL-10

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CAA ACT CAC TCA T-NH2-3'
5'-GTC ATG TAG GCT TCT ATG TAG TTG ATG AAG ATG TA-3'
5'-GGC TTT GTA GAT GCC TTT CTC TTG GA-3'
5'-ATG AGT GAG TTT GGT GCG-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:621)
(SEQ ID NO:622)
(SEQ ID NO:623)
(SEQ ID NO:624)
(SEQ ID NO:189)
(SEQ ID NO:625)

hIL-4

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CTT GGA GGC A-NH2-3'
5'-AAG GTT TCC TTC TCA GTT GTG TTA-3'
5'-GCA AAG ATG TCT GTT ACG GTC AAC TC-3'
5'-TGC CTC CAA GGT GCG C-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:626)
(SEQ ID NO:627)
(SEQ ID NO:628)
(SEQ ID NO:629)
(SEQ ID NO:189)
(SEQ ID NO:625)

hIFN-γ

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CTT CAA AAT GCC TAA-NH2-3'
5'-TGT CAC TCT CCT CTT TCC AAT TA-3'
5'-GAA AAG AGT TCC ATT ATC CGC TAC ATC TG-3'
5'-TTA GGC ATT TTG AAG GTG CGC-3'
5'-FL-CAC (Z28)-TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:630)
(SEQ ID NO:631)
(SEQ ID NO:632)
(SEQ ID NO:633)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 1A2, 1193G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CGT TGT GTC CC-NH2-3'
5'-**GGG** ATG TAG AAG CCA TTC AGA-3'
5'-TTG TTG TGC TGT GGG GGA TG-3'
5'-**GGG ACA CAA CCG TGC GC-3'**
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG **TTT-3'**

(SEQ ID NO:634)
(SEQ ID NO:635)
(SEQ ID NO:636)
(SEQ ID NO:637)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 2B6, 343G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'- CCG TCA CGC CTC CAC CAT ATC CC-NH2-3'
5'-CCA GCG GTT TCC ATT GGC AAA GAT CAA-3'
5'-**CGG AAG AAT GGG TCG ACC ATG-3'**
5'-**GGG ATA TGG TGG AGG CG-3'**
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC **GGT-3'**

(SEQ ID NO:638)
(SEQ ID NO:639)
(SEQ ID NO:640)
(SEQ ID NO:641)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 2C19, 223G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CGT TCC AGG C-NH2-3'
5'-CAT ATC CAT GCA GCA CCA CCA TGA-3'
5'-CAA AAT ACA GAG TGA ACA CAG GGC C-3'
5'-**GCC TGG AAC GGT GCG C-3'**
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG **TTT-3'**

(SEQ ID NO:642)
(SEQ ID NO:643)
(SEQ ID NO:644)
(SEQ ID NO:645)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 2C9, 1554T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC ATG GAT AAT GCC C-NH2-3'
5'-CAG GTG AGA AAA GGC ATT ACA GAT AGT GAA AGC-3'
5'-CAG AGG AAA GAG AGC TGC AGG G-3'
5'-**GGG CAT TAT CCA TGA GGC G-3'**
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC **GGT-3'**

(SEQ ID NO:646)
(SEQ ID NO:647)
(SEQ ID NO:648)
(SEQ ID NO:649)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 2D6, 1316G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CCT GCT GAG AAA-NH2-3'
5'-CCC GAG GCA TGC ACG GCG GA-3'
5'-GGC AGG AAG GCC TCC-3'
5'-TTT CTC AGC AGG GAG GCG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:650)
(SEQ ID NO:651)
(SEQ ID NO:652)
(SEQ ID NO:653)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 3A4, 309C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC GCC CCA CA-NH2-3'
5'-CAG CAC AGG CTG TTG ACC ATC ATA AAA C-3'
5'-CTT TTC CAT ACT TTT TAT GAC ATT C-3'
5'-TGT GGG GCG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:654)
(SEQ ID NO:655)
(SEQ ID NO:656)
(SEQ ID NO:657)
(SEQ ID NO:189)
(SEQ ID NO:190)

hCYP 3A5 v2, 323T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC AGT TGA CCT TC-NH2-3'
5'-GTG ATG GCC AGC ACA GGG C-3'
5'-ATA CGT TCC CCA CAT TTT TC-3'
5'-TGA AGG TCA ACT GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:658)
(SEQ ID NO:659)
(SEQ ID NO:660)
(SEQ ID NO:661)
(SEQ ID NO:189)
(SEQ ID NO:625)

hCYP 3A7, 231C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GTC ATA AAT ACC CC-NH2-3'
5'-GCC AGC ATA GGC TGT TGA CAC-3'
5'-AGA CTT TTC TAT ACT TTT TAT AAC ATT C-3'
5'-GGG GTA TTT ATG ACG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:662)
(SEQ ID NO:663)
(SEQ ID NO:664)
(SEQ ID NO:665)
(SEQ ID NO:189)
(SEQ ID NO:625)

h/rCYP 1A1 (human: 937, rat 863G)

Primary probe
INVADER oligonucleotide (h)
INVADER oligonucleotide (r)
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTG TCT GTG AT-NH2-3'
5'-TCC TGA CAG TGC TCA ATC AGG A-3'
5'-TCC TGA CAA TGC TCA ATG AGG A-3'
5'-GTC CCG GAT GTG GCC C-3'
5'-ATC ACA GAC AGG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:666)
(SEQ ID NO:667)
(SEQ ID NO:668)
(SEQ ID NO:669)
(SEQ ID NO:670)
(SEQ ID NO:189)
(SEQ ID NO:190)

h/rCYP 1A2 (813C/819C)

Primary probe
INVADER oligonucleotide (h)
INVADER oligonucleotide (r)
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GGA CTG TTT TCT GC-NH2-3'
5'-CTT GTC AAA GTC CTG ATA GTG CTC CTC-3'
5'-CTT GTT GAA GTC TTG ATA GTG TTC CTC-3'
5'-GCA GAA AAC AGT CCG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:671)
(SEQ ID NO:672)
(SEQ ID NO:673)
(SEQ ID NO:674)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 2B1, 1017T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC ACT GCG GTC AT-NH2-3'
5'-GTG GAT AAC TGC ATC AGT GTA TGG CAT TTT C-3'
5'-CAA GGG TTG GTA GCC TGT GTG AGC C-3'
5'-ATG ACC GCA GTG AGG CG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:675)
(SEQ ID NO:676)
(SEQ ID NO:677)
(SEQ ID NO:678)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 2B2, 162T

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC AGA GCC AAT CAC-NH2-3'
5'-CGA TCA TCA AGG GAT GGT GGC CTG TGC-3'
5'-CTG ATC AAT CTC CTT TTG GAC TTT CTC TGC G-3'
5'-GTG ATT GGC TCT GAG GCG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:679)
(SEQ ID NO:680)
(SEQ ID NO:681)
(SEQ ID NO:682)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 2E1, 969G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC AAT TTC TG-NH2-3'
5'-CCC TGT CAA TTT CTT CAT GAA GTT TA-3'
5'-GGT ATT TCA TGA GGA TCA GGA GC-3"
5'-CAG AAA TTG AAG AGG CGG-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:683)
(SEQ ID NO:684)
(SEQ ID NO:685)
(SEQ ID NO:686)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 3A1, 164G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC CCG GTC CCA-NH2-3'
5'-TCC CCT GTT TCT TGA AAA GTC CAT GTG TGA-3'
5'-AAT CCG TAG AGG AGC ACC AGG-3'
5'-TGG GAC CCG GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:687)
(SEQ ID NO:688)
(SEQ ID NO:689)
(SEQ ID NO:690)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 3A2, 1091G

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-CCG TCA CGC CTC CTC GGC AGG-NH2-3'
5'-CAC AAT ATC GTA GGT AGG AGG TGC CTT AA-3'
5'-GCC CCA TCG ATC TCC TCC-3'
5'-CCT GCC GAG GAG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG AGG CGT GAC GGT-3'

(SEQ ID NO:691)
(SEQ ID NO:692)
(SEQ ID NO:693)
(SEQ ID NO:694)
(SEQ ID NO:189)
(SEQ ID NO:190)

rCYP 4A1, 296A

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC TAG GCT TTG CT-NH2-3'
5'-TTC ATG TAG TCA GGG TCA TAG ACA ATT AAG A-3'
5'-TCC CCA GAA CCA TCG AGG AAA GG-3'
5'-AGC AAA GCC TAG TGC GC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG TTT-3'

(SEQ ID NO:695)
(SEQ ID NO:696)
(SEQ ID NO:697)
(SEQ ID NO:698)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 4A2

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC AGA AGG CCC CTT-NH2-3'
5'-CCT TGA ACA GCA CCA GAA ATA GAC TGA GCA C-3'
5'-GGA AGA ACC CAG AGA CAC CAT CC-3'
5'-AAG GGG CCT TCT GTG CGC-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG **TTT-3'**

(SEQ ID NO:699)
(SEQ ID NO:700)
(SEQ ID NO:701)
(SEQ ID NO:702)
(SEQ ID NO:189)
(SEQ ID NO:625)

rCYP 4A3, 1235C

Primary probe
INVADER oligonucleotide
Stacker
ARRESTOR oligonucleotide
FRET Probe
Secondary target

5'-AAC GAG GCG CAC GTT GTG ATA CCT T-NH2-3'
5'-GAT GAA GGC CAT AAA TTA AAA TTG TGC-3'
5'-TGG GTA TGG AAC GTC C-3'
5'-AAG GTA TCA CAA CGT GCG C-3'
5'-FL-CAC (Z28) TGC TTC GTG G-3'
5'-CCA GGA AGC AAG TGG TGC GCC TCG **TTT-3'**

(SEQ ID NO:703)
(SEQ ID NO:704)
(SEQ ID NO:705)
(SEQ ID NO:706)
(SEQ ID NO:189)
(SEQ ID NO:625)

Figure 42

The screenshot shows a web browser window titled "InvaderCreator - Microsoft Internet Explorer". The address bar displays "http://localhost/InvaderCreator.html". The page content includes a form with the following elements:

- User Name:** A text input field.
- Sequence Number:** A text input field.
- Target Sequence:** A text input field.
- Order Number:** A text input field.
- Species:** A dropdown menu with "Human" selected.
- Options:** Radio buttons for "DNA" (selected) and "RNA".
- Buttons:** "Multiplexed Design" and "Go Design It".
- Footer:** "Third Wave Technologies InvaderCreator v1.7" and a "details..." link.

The browser's status bar at the bottom indicates "Applet Initiated" and "Local intranet".

Figure 43

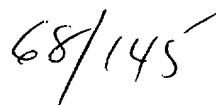


FIGURE 47

Oligo sequence descriptions: 5' to 3' direction, 2'-Ome nts are bolded and underlined, internal modifications defined in ()

Oligo Type	Oligo Sequence (5' to 3')	Modification	SEQ ID NO
hTNF- α			
probe	ccg ccg aga tca ctc tga ctg cct NH2	3' Amine	709
invader	ttg tca ctc ggg gtt cga gaa gat gaa		710
stacker	<u>ggg cca gag ggc tga tta g</u>	<u>all 2'Ome bases</u>	711
stacker	<u>ggg cca gag ggc tga tta</u>	<u>all 2'Ome bases</u>	712
stacker	<u>ggg cca gag ggc tg at</u>	<u>all 2'Ome bases</u>	713
stacker	<u>ggg cca gag ggc t</u>	<u>all 2'Ome bases</u>	714
stacker	<u>ggg cca gag gg</u>	<u>all 2'Ome bases</u>	715
arrestor	<u>agg cag tca gag tga tc</u>	<u>all 2'Ome bases</u>	716
arrestor	<u>agg cag tca gag tga tct c</u>	<u>all 2'Ome bases</u>	717
SRT	cggaagaagcagttggtgatctcgccgNH2		718
FRET probe	Fcaac(Cy3)gcttctccg	3' Amine	719
probe	ccg tca cgc ctc tct gac tgc ct NH2	3' Amine	720
invader	ttg tca ctc ggg gtt cga gaa gat gaa		721
stacker	<u>ggg cca gag ggc tga tta g</u>	<u>all 2'Ome bases</u>	722
arrestor	<u>agg cag tca gag agg cg</u>	<u>all 2'Ome bases</u>	723
SRT	cggaagaagcagttggtgagcggtgacggNH2	3'base 2'Ome, 3'Amine	724
FRET probe	Fcaac(Cy3)gcttctccg		725
probe	ccg tca cgc ctc tct gac tgc ctg gNH2	3' Amine	726
invader	ttg tca ctc ggg gtt cga gaa gat gaa		727
arrestor	<u>cca ggc agt cag aga ggc g</u>	<u>all 2'Ome bases</u>	728
SRT	cggaagaagcagttggtgagcggtgacggNH2	3'base 2'Ome, 3'Amine	729
FRET probe	Fcaac(Cy3)gcttctccg		730
probe	ccg ccg aga tca ctc tga ctg cc NH2	3' Amine	731
invader	ttg tca ctc ggg gtt cga gaa gat gaa		732
stacker	<u>tgg gcc aga ggg ctg att a</u>	<u>all 2'Ome bases</u>	733
arrestor	<u>agg cag tca gag tga tc</u>	<u>all 2'Ome bases</u>	734
SRT	cggaagaagcagttggtgatctcgccgNH2	3' Amine	735
FRET probe	Fcaac(Cy3)gcttctccg		736
probe	ccg ccg aga tca ctg atc tga ctg NH2	3' Amine	737
invader	ctt gtc act cgg ggt tcg aga aga c		738

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stacker	sct ggg cca gag ggc tga tt	all 2'Ome bases	739
arrestor	cag tca gat cag tga tc	all 2'Ome bases	740
SRT	cggaagaagcagttggtgatctcgccgNH2	3' Amine	741
FRET probe	Fcaac(Cy3)gcttctccg		742
probe	ccg tca cgc ctc tct gac tgc ca NH2	3' Amine	743
probe	ccg tca cgc ctc tct gac tgc cg NH2	3' Amine	744
probe	ccg tca cgc ctc tct gac ggc ct NH2	3' Amine	745
probe	ccg tca cgc ctc tct gac agc ct NH2	3' Amine	746
invader	ttg tca ctc ggc gtt cga gaa gat gaa		747
stacker	ggg cca gag gg	all 2'Ome bases	748
arrestor	agg cag tca gag agg cg	all 2'Ome bases	749
arrestor	agg ccg tca gag agg cg	all 2'Ome bases	750
arrestor	agg ctg tca gag agg cg	all 2'Ome bases	751
SRT	ccaggaaagcagttggtgatctcgccgNH2	3' 3bases 2'Ome	752
FRET probe	Fcaac(ZZ1)gcttctccg		753
probe	ccg ccg aga tca ctc tga tgc ctg gg NH2	3' Amine	754
invader	ctt gtc act cgg ggt tgc aga aga tga a		755
arrestor	ccc agg cag tca gag tga tcNH2	all 2'Ome bases, 3' Amine	756
SRT	cggaagaagcagttggtgatctcgccgNH2	3' 2 last base 2'Ome, 3' Amine	757
FRET probe	Fcaac(Cy3)gcttctccg		758
<hr/>			
hIL-1β			
probe	ccg tca cgc ctc cat ctg tt agg g NH2	3' Amine	759
invader	cag gtc ctg gaa gga gca ctt a		760
stacker	cca tca gct tct ttg ttc ttg tca tc	all 2'Ome bases	761
arrestor	gcc cta aac aga tgg agg cg	all 2'Ome bases	762
SRT	cggaagaagcagttggtgatctcgccgNH2	3'base 2'Ome, 3'Amine	763
FRET probe	Fcaac(Cy3)gcttctccg		764
probe	ccg tca cgc ctc cat ctg tt agg gc NH2	3' Amine	765
invader	cag gtc ctg gaa gga gca ctt a		766
stacker	cat cag ctt ctt tct tct tct cat cc	all 2'Ome bases	767
arrestor	gcc cta aac aga tgg agg cg	all 2'Ome bases	768
SRT	cggaagaagcagttggtgatctcgccgNH2	3'base 2'Ome, 3'Amine	769
FRET probe	Fcaac(Cy3)gcttctccg		770
probe	ccg tca cgc ctc cat ctg tt agg NH2	3' Amine	771

invader	cag gtc ctg gaa gga gca ctt a				772
stacker	gcc atc agc ttc ttt gtt ctt gtc atc	all 2'Ome bases			773
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base 2'Ome , 3'Amine			774
FRET probe	Fcaac(Cy3)gcttctccg				775
probe	ccg tca cgc ctc cca tca gct tcNH2	3' Amine			776
invader	gag cac ttc atc tgt tta ggg a				777
stacker	ttt gtt ctt gtc atc ctc att gcc ac	all 2'Ome bases			778
arrestor	gaa gct gat ggg agg cg	all 2'Ome bases			779
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base 2'Ome , 3'Amine			780
FRET probe	Fcaac(Cy3)gcttctccg				781
probe	ccgcgagatcactatctgttttagggccNH2	3' Amine			782
probe	ccgcgagatcactatctgttttagggcNH2	3' Amine			783
invader	caggtcctggaaggagcacta				784
arrestor	ggccctaaacagatgagtgcNH2	all 2'Ome bases, 3' Amine			785
SRT	cggaagaagcagttggatgcctggcgNH2	3' 2 last base 2'Ome , 3' Amine			786
FRET probe	Fcaac(Cy3)gcttctccg				787

hcFOS					788
probe	ccg tca cgc ctc cag gtt ggc NH2	3' Amine			789
invader	gct tga ccc agg gag gg				790
arrestor	gcc aag gtg ctg gag gcg	all 2'Ome bases			791
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base 2'Ome , 3'Amine			792
FRET probe	Fcaac(Cy3)gcttctccg				
probe	ccg tca cgc ctc cag gtt gg NH2	3' Amine			793
invader	gct tga ccc agg gag gg				794
stacker	caa tct cgg tct gca aag cag ac	all 2'Ome bases			795
arrestor	gcc aag gtg ctg gag gcg	all 2'Ome bases			796
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base 2'Ome , 3'Amine			797
FRET probe	Fcaac(Cy3)gcttctccg				798
probe	ccg tca cgc ctc tca gca ggt tgg NH2	3' Amine			799
invader	act cta gtt ttt cct tct cct a				800
stacker	saa tct cgg tct gca aag cag ac	all 2'Ome bases			801
arrestor	cca acc tgc tga gag gcg	all 2'Ome bases			802
SRT	cggaagaagcagttggaggcgtgacggtNH2	3'base 2'Ome , 3'Amine			803
FRET probe	Fcaac(Cy3)gcttctccg				804

[illegible]

FRET probe	Fcaac(Cy3)gcttctccg	836
probe	gcc gtc acg cct ctt tgg gtt tgc ttg tc NH2	837
probe	gcc gtc acg cct ctt tgg gtt tgc ttg tNH2	838
invader	tggagtgtgttcaagcttcggaga	839
arrestor	gacaagcacaaccccaagagggcg	840
SRT	cggaagaagcagttggagcggtgacggcNH2	841
FRET probe	Fcaac(Cy3)gcttctccg	842
probe	cct gtc tgc ctg cct tog gag ttt ggg	843
probe	cct gtc tgc ctg cct tog gag ttt gg	844
invader	ggg ttg tgg agt gag tgt tca agt a	845
arrestor	ccc aaa ctc cga agg cag cg	846
SRT	cgaggaagcagttggcagcgagacagNH2	847
SRT	cgaggaagcagttggcagcgagac(Amino dA)ggNH2	848
SRT	cgaggaagcagttggcagcg(Amino dA)gacaggNH2	849
SRT	cgaggaagcagttggc(Amino dA)gagacagNH2	850
SRT	cgaggaagcagttggc(Amino dA)gac(Amino dA)ggNH2	851
SRT	cgaggaagcagttggc(Amino dA)gagac(Amino dA)ggNH2	852
SRT	cgaggaagcagttggc(Amino dA)gag(Amino dA)gacaggNH2	853
FRET probe	Fcaac(Cy3)gcttctccg	854
probe	gcc gtc acg cct ctg gga cac ttg ctg cNH2	855
invader	gcc aca atg gtc ttg aag atc aca gct tct ta	856
arrestor	gca gca agt gtc cca gag gcg NH2	857
SRT	cggaagaagcagttggagcggtgacggcNH2	858
FRET probe	Fcaac(Cy3)gcttctccg	859
probe	ccg tca cgc ctc ctt cgg agt ttg gg NH2	860
invader	ggg ttg tgg agt gag tgt tca agt a	861
arrestor	5'-ggg-aaa-ctc-cga-agg-agg-cg-3'	862
SRT	ccaggaagcagttggagcggtgacgggu	863
FRET probe	Fcac(Z21)tgcttcgtg	864
probe	cgc cga gat cac ctt cgg agt ttg ggNH2	865
invader	ggg ttg tgg agt gag tgt tca agt a	866
arrestor	ccc aaa ctc cga agg tga tc	867
SRT	cggaagaagcagttgggtgacgcggNH2	868
FRET probe	Fcaac(Cy3)gcttctccg	869

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probe	aac gag ggc cac ctt cgg agt ttg gg NH2	3' Amine	870
invader	ggg ttg tgg agt gag tgt tca agt a		871
arrestor	ccc.aaa.cfc.cga.agg.tgc.g	all 2'Ome bases	872
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3' last 5 bases 2'Ome , 3' Amine	873
FRET probe	Fcaac(Cy3)gcttctccg		874
probe	ccg tca cgc ctc ctt cgg agt ttg g NH2	3' Amine	875
invader	ggg ttg tgg agt gag tgt tca agt a		876
stacker	gtt.tgc.ttg.tcc.agg.tgg	all 2'Ome bases	877
arrestor	cca.aac.tcc.gaa.gga.ggc.g	all 2'Ome bases	878
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3'base 2'Ome , 3'Amine	879
FRET probe	Fcaac(Cy3)gcttctccg		880
probe	ccg tca cgc ctc ctt cgg agt ttg NH2	3' Amine	881
invader	ggg ttg tgg agt gag tgt tca agt a		882
stacker	gtt.ttg.cft.gtc.cag.gtg.g	all 2'Ome bases	883
arrestor	cca.aac.tcc.gaa.gga.ggc.g	all 2'Ome bases	884
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3'base 2'Ome , 3'Amine	885
FRET probe	Fcaac(Cy3)gcttctccg		886
probe	ccg tca cgc ctc ctt cgg agt ttNH2	3' Amine	887
invader	ggg ttg tgg agt gag tgt tca agt a		888
stacker	ggg.ttt.gct.tgt.cca.ggt.g	all 2'Ome bases	889
arrestor	cca.aac.tcc.gaa.gga.ggc.g	all 2'Ome bases	890
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3'base 2'Ome , 3'Amine	891
FRET probe	Fcaac(Cy3)gcttctccg		892
probe	ccgtcacgcctccggagttgggNH2	3' Amine	893
invader	gtt gtg gag tga gtg ttc aag tat ta		894
stacker	ttt.gct.tgt.cca.ggt.ggt.cca.g	all 2'Ome bases	895
arrestor	ccc.aaa.cfc.cgg.agg.cg	all 2'Ome bases	896
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3'base 2'Ome , 3'Amine	897
FRET probe	Fcaac(Cy3)gcttctccg		898
probe	cgc cga gat cac cgg agt ttg ggNH2	3' Amine	899
invader	gtt gtg gag tga gtg ttc aag tat ta		900
stacker	ttt.gct.tgt.cca.ggt.ggt.cca.g	all 2'Ome bases	901
arrestor	cta.gtg.gcc.tca.aac.cc	all 2'Ome bases	902
SRT	cggaagaagcagttggtgcgcctcgttaaNH2	3' Amine	903
FRET probe	Fcaac(Cy3)gcttctccg		904

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hUbiquitin			
probe	cgc cga gat cac ctt tac att ttc tat cgt		905
probe	cgc cga gat cac ctt tac att ttc tat cgt NH2		906
invader	5' -cct tcc tta tcc tgg atc ttg gca -3'	3' Amine	907
arrestor	<u>acg ata gaa aat gta aag gtg atc</u>	<u>all 2'Ome bases</u>	908
SRT	5'-cgc agt gag aat gag gtg atc tgc gcggt-3'	<u>3' last 3 bases 2'Ome</u>	909
FRET probe	5'-Red-ctc-Z21-ttc tca gtg cg-3'		910

hIL-2			
probe	gtttctttgtgtctccgactgccNH2		911
invader	cca gca gta aat gct cca gtt gta ga		912
stacker	<u>tag aac ttg aag tag gtg c</u>	<u>all 2'Ome bases</u>	913
arrestor	<u>caa aga aaa cac agg agg c</u>	<u>all 2'Ome bases</u>	914
SRT	ccaggaagcaagtggaggcgtgacggu	<u>3' 3bases 2'Ome</u>	915
FRET probe	Fcac(Z21)tgctctgtgg		916

probe	aac gag gcg cac ctg tgt ttt ctt tg NH2		917
invader	cca gca gta aat gct cca gtt gta ga		918
stacker	<u>tag aac ttg aag tag gtg c</u>	<u>all 2'Ome bases</u>	919
arrestor	<u>caa aga aaa cac agg tgc g</u>	<u>all 2'Ome bases</u>	920
SRT	ccaggaagcaagtgggtgcgcctgttt	<u>3' last 3 bases 2'Ome</u>	921
FRET probe	Fcac(Z21)tgctctgtgg		922

probe	cgc tca cgc ctc ctc cag ttg tag NH2		923
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	<u>5' 6 bases 2'Ome</u>	924
stacker	<u>ctg tgt ttt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>	925
arrestor	<u>cta caa ctg gag gag gc</u>	<u>all 2'Ome bases</u>	926
SRT	ccaggaagcaagtggaggcgtgacggu	<u>3' 3bases 2'Ome</u>	927
FRET probe	Fcac(Z21)tgctctgtgg		928

probe	aac gag gcg cac ctc cag ttg tag NH2		929
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	<u>5' 6 bases 2'Ome</u>	930
stacker	<u>ctg tgt ttt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>	931
arrestor	<u>cta caa ctg gag gtg cg</u>	<u>all 2'Ome bases</u>	932
SRT	ccaggaagcaagtgggtgcgcctgttt	<u>3' last 3 bases 2'Ome</u>	933
FRET probe	Fcac(Z21)tgctctgtgg		934

probe	cgc tca cgc ctc ctc ttt ctt tgt aNH2	3' Amine	935
invader	gta aat cca gca gta aat gct cca gtt gta ga		936
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>all 2'Ome bases</u>	937
arrestor	<u>tacaaagaaacacagaggcgctNH2</u>	<u>all 2'Ome bases, 3' amine</u>	938
SRT	ccaggaagcaagtggagcgctgacggu	<u>3' 3bases 2'Ome</u>	939
FRET probe	Fcac(Z21)tgcttcgtgg		940
probe	aac gag gcg cac ctg tgt ttt ctt tgt aNH2	3' Amine	941
invader	gta aat cca gca gta aat gct cca gtt gta ga		942
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>all 2'Ome bases</u>	943
arrestor	<u>tac aaa gaa aac aca ggt gcg</u>	<u>all 2'Ome bases</u>	944
SRT	ccaggaagcaagtggcgctcgttt	<u>3' last 3 bases 2'Ome</u>	945
FRET probe	Fcac(Z21)tgcttcgtgg		946
probe	cgc tca cgc ctc ctc cag ttg taa NH2	3' Amine	947
probe	cgc tca cgc ctc ctc cag ttg tat NH2	3' Amine	948
probe	cgc tca cgc ctc ctc cag ttg tac NH2	3' Amine	949
invader	<u>aaa atc atc tgt aaa tcc agc agt aaa tga</u>	5' 6 bases <u>2'Ome</u>	950
stacker	<u>ctg tgt ttt ctt tgt aga ac</u>	<u>all 2'Ome bases</u>	951
arrestor	<u>cta caa ctg gag gag gc</u>	<u>all 2'Ome bases</u>	952
SRT	ccaggaagcaagtggagcgctgacggu	<u>3' 3bases 2'Ome</u>	953
FRET probe	Fcac(Z21)tgcttcgtgg		954
probe	gcc gtc acg cct ttc ttg atg NH2	3' Amine	955
invader	ttc tag aca ctg aag atg ttt cag ttc tgt gga		956
arrestor	<u>cat gcc caa gaa ggg agg cg NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	957
SRT	cggaagacagcagttggagcgctgacgcnh2	3'2 bases <u>2'Ome</u> , 3' Amine	958
FRET probe	Fcaac(Cy3)gcttcctccg		959
probe	cgc tca cgc ctc taa ttc cat tca aaa tca tct NH2	3' Amine	960
invader	cat cct ggt gag ttg ggg att ctt gta att tat a		961
stacker	<u>gta aat cca gca gta aat gct cca gNH2</u>	<u>all 2'Ome bases, 3' Amine</u>	962
arrestor	<u>aga tga ttt tga atg gaa tta gag gcg NH2</u>	<u>all 2'Ome bases, 3' Amine</u>	963
SRT	cggaagacagcagttggagcgctgacgcnh2	3'2 bases <u>2'Ome</u> , 3' Amine	964
FRET probe	Fcaac(Cy3)gcttcctccg		965
probe	ccg ccg aga tca cct ctg ttg tct ttg ta		966
invader	gta aat cca gca gta aat gct cca gtt gta ga		967
stacker	<u>gaa ctt gaa gta ggt gca ctg tt</u>	<u>All 2' Ome</u>	968
stacker	gaa ctt gaa gta ggt gca ctg tt		969

stacker	gaa ctt gaa gta ggt gca ctg tt	5' 3bases 2'Ome	970
stacker	gaa ctt gaa gta ggt gca ctg tt	5' 6bases 2'Ome	971
arrestor	tac aaa gaa aac aca ggt gat ct	All 2' Ome	972
SRT	cggaggaagcagttggtgatctcgccgNH2	3' 2 last base 2'Ome, 3' Amine	973
FRET probe	Fcaac(Cy3)gcttctccg		974
probe	aac gag gcg cac cct tct tgg gca tgNH2	3' Amine	975
invader	ttc tag aca ctg aag atg ttt cag ttc tgt gga		976
arrestor	cat gcc caa gaa ggg tcg gNH2	all 2'Ome bases	977
SRT	cggagaagcagttggtgcgcctcggttaaNH2	3' last 5 bases 2'Ome, 3' Amine	978
FRET probe	Fcaac(Cy3)gcttctccg		979
probe	aac gag gcg cac taa ttc cat tca aaa tca tct		980
invader	cat cct ggt gag ttt ggg att ctt gta att tat a		981
stacker	gta aat cca gca gta aat gct cca gNH2	all 2'Ome bases, 3' Amine	982
arrestor	aga tga ttt tga atg gaa tta gtg gt NH2	all 2'Ome bases, 3' Amine	983
SRT	cggagaagcagttggtgcgcctcggttaaNH2	3' last 5 bases 2'Ome, 3' Amine	984
FRET probe	Fcaac(Cy3)gcttctccg		985

hIL-4			
probe	cct gtc tgc ctg cca gtt gtg ttc ttg gag NH2	3' Amine	986
invader	ccc tgc aga agg ttt cct tct a		987
invader	ccc tgc aga tgg ttt cct tct a		988
arrestor	ctc caa gaa cac aac tgg cag cNH2	all 2'Ome bases, 3' Amine	989
arrestor	ctc caa gaa cac aac tgg cag cga NH2	all 2'Ome bases, 3' Amine	990
arrestor	ctc caa gaa cac aac tgg cag cga gaNH2	all 2'Ome bases, 3' Amine	991
SRT	cggaggaagcagttggtgcgcgcagagagcagNH2	3' last base 2'Ome, 3' Amine	992
FRET probe	Fcaac(Cy3)gcttctccg		993
probe	aac gag gcg cac ctt gga ggc agc aaa NH2	3' Amine	994
probe	aac gag gcg cac ctt gga ggc agc aaNH2	3' Amine	995
invader	aag gtt tcc ttc tca gtt gtg tta		996
arrestor	ctt tcg tcg ctc caa ggt gcg NH2	all 2'Ome bases, 3' Amine	997
SRT	cggaggaagcagttggtgcgcctcggttaa NH2	3' last 5 bases 2'Ome, 3' Amine	998
FRET probe	Fcaac(Cy3)gcttctccg		999
probe	cag tca cgt ctc tgg agg cag caa aga tg NH2	3' Amine	1000
invader	aag gtt tcc ttc tca gtt gtg ttc ta		1001
arrestor	cat ctt tcg tcg ctc cag aga cg NH2	all 2'Ome bases, 3' Amine	1002

SRT	gctactgagatgaaggagacgtgactgtatNH2	1003
FRET probe	Fcttc(Cy3)tctcagtagc	1004
probe	aac gag gcg cac ctt gga ggc agc aaa g NH2	1005
invader	aag gtt tcc ttc tca gtt gtg tta	1006
arrestor	ctt tgc tgc ctc caa ggt gcg NH2	1007
SRT	cggaggaagcagttggtgcgcctcgttaa	1008
FRET probe	Fcaac(Cy3)gcttctccg	1009
<hr/>		
mIL-2		
probe	cgc cga gat cac ccc ttt agt ttt aca aca gtNH2	1010
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga	1011
arrestor	act gtt gta aaa cta aag ggg gtg atc t NH2	1012
SRT	cggaggaagcgttggatctcgccgNH2	1013
FRET probe	Fcaac(Cy3)gcttctccg	1014
probe	tgc cgc cga gat cac ccc ttt agt ttt aca aca gtNH2	1015
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga	1016
arrestor	act gtt gta aaa cta aag ggg gtg NH2	1017
arrestor	act gtt gta aaa cta aag ggg gtg at NH2	1018
arrestor	act gtt gta aaa cta aag ggg gtg at ctNH2	1019
arrestor	act gtt gta aaa cta aag ggg gtg at ctcgNH2	1020
SRT	cggaggaagcgttggatctcgccgcaNH2	1021
FRET probe	Fcaac(Cy3)gcttctccg	1022
probe	gc cgc cga gat cac ccc ttt agt ttt aca aca gtNH2	1023
probe	c cgc cga gat cac ccc ttt agt ttt aca aca gtNH2	1024
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga	1025
arrestor	act gtt gta aaa cta aag ggg gtg at NH2	1026
SRT	cggaggaagcgttggatctcgccgcaNH2	1027
FRET probe	Fcaac(Cy3)gcttctccg	1028
probe	aac gag gcg cac ccc ttt agt ttt aca aca gt NH2	1029
invader	gaa ttg gca ctc aaa tgt gtt gtc aga ga	1030
arrestor	agtaactgtgtgtaaaactaaaggggtcgcg	1031
SRT	cggaggaagcagttggtgcgcctcgttaa	1032
FRET probe	Fcaac(Cy3)gcttctccg	1033
probe	aac gag gcg cac ccc ttt agt ttt aca aca gt NH2	1034

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invader
arrestor
SRT
FRET probe

gaa ttg gca ctc aaa tgt gtt gtc aga ga
agt aac tgt tgt aaa act aaa ggg gtg cg NH2
cggaggaaagcagttgtgctgcctctgttaa
Fcaac(Cy3)gcttctccg

1035
1036
1037
1038

probe
invader
stacker
arrestor
SRT
FRET probe

cgtacgcctcccttagttttacaacNH2
gaa ttg gca ctc aaa tgt gtt gtc aga ga
agt tac tct gat att gct gat gaa att ctc ag
gtt gtaaaactaaagggaggcg
cggagaagcagttggaggcgtagcggtNH2
Fcaac(Cy3)gcttctccg

1039
1040
1041
1042
1043
1044

probe
invader
stacker
arrestor
SRT
FRET probe

cgccgagatcaccccttagttttacaacNH2
gaa ttg gca ctc aaa tgt gtt gtc aga ga
agt tac tct gat att gct gat gaa att ctc ag
gtt gtaaaactaaagggaggcg
cggagaagcagttggaggcgtagcggtNH2
Fcaac(Cy3)gcttctccg

1045
1046
1047
1048
1049
1050

probe
invader
stacker
arrestor
SRT
FRET probe

cgtacgcctcccttagttttacaacNH2
gaa ttg gca ctc aaa tgt gtt gtc aga ga
cagttactctgatattgctgatgaaattctca
gtt gtaaaactaaagggaggcg
cggagaagcagttggaggcgtagcggtNH2
Fcaac(Cy3)gcttctccg

1051
1052
1053
1054
1055
1056

probe
invader
stacker
arrestor
SRT
FRET probe

cgtacgcctcccttagttttacaacNH2
gaa ttg gca ctc aaa tgt gtt gtc aga ga
cagttactctgatattgctgatgaaattctca
gtt gtaaaactaaagggaggcg
ccaggaaagcagttggaggcgtagcggtNH2
Fcaac(Cy3)gcttctccg

1057
1058
1059
1060
1061
1062

mIL-10
probe
invader
stacker
arrestor
SRT

ccg tca cgc ctc ccg tta gct aag at NH2
cga ggt tt cca agg agt tgt tta
ccc tgg atc aga tt aga gag c
atc tta gct aac ggg agg cg
cggagaagcagttggaggcgtagcggtNH2

1063
1064
1065
1066
1067

FRET probe	Fcaac(Cy3)gcttcctcgcg	1068
probe	ccg tca cgc ctc agt tgt ttc cgt tNH2	
invader	aga ggt aca aac gag gtt ttc caa ggc	1069
stacker	agg taa gat ccc tgg atc aga ttt aga ga	1070
arrestor	aac gga aac aac tga ggc g	1071
SRT	ccaggaagcaagtggagcggtgacggg	1072
FRET probe	Fcac(Z21)tgcttcgtgg	1073
probe	ccg tca cgc ctc cgc tta gct aNH2	1074
invader	caa acg agg ttt tcc aag gag ttg a	1075
stacker	aga tcc ctg gat cag att tag aga gct c	1076
arrestor	tag cta acg gaa aga ggc g	1077
SRT	ccaggaagcaagtggagcggtgacggg	1078
FRET probe	Fcac(Z21)tgcttcgtgg	1079
probe	ccg tca cgc ctc cgc tta gNH2	1080
invader	aga ggt aca aac gag gtt ttc caa gga ga	1081
stacker	cta aga tcc ctg gat cag att tag aga g	1082
arrestor	cta cgg gaa caa gaggcg	1083
SRT	ccaggaagcaagtggagcggtgacggg	1084
FRET probe	Fcac(Z21)tgcttcgtgg	1085
probe	ccg tca cgc ctc cgc tta gNH2	1086
invader	aga ggt aca aac gag gtt ttc caa gga ga	
stacker	cta aga tcc ctg gat cag att tag aga g	
arrestor	cta cgg gaa caa gaggcg	
SRT	ccaggaagcaagtggagcggtgacggg	
FRET probe	Fcac(Z21)tgcttcgtgg	
hIFN- γ probe	aac gag gcg cac ctt acc aat gcc taa gaa aag agt tNH2	1087
invader	tgc att att ttt ctg tca ctc tcc tct ttc caa tta	1088
arrestor	aac tct ttt ctt agg cat ttt gaa ggt gcg NH2	1089
SRT	cgagggaagcagttggtgcgccttcgttaaNH2	1090
FRET probe	Fcaac(Cy3)gcttcctcgcg	1091
probe	cag tca cgt ctc tct tca aaa tgc cta aga aaa gag tNH2	1092
invader	tct gca tta ttt ttc tgc cac tct cct ttc aat a	1093
arrestor	act ctt ttc tta ggc att ttg aag aga gac gNH2	1094
SRT	gctactgagatgaagagacgtgactgtatNH2	1095
FRET probe	Fcttc(Cy3)tcctcagtagc	1096
mIFN- γ probe	aac gag gcg cac cct ttt gcc agt tcc NH2	1097

invader
arrestor
SRT
FRET probe

gct ctg cag gat ttt cat gtc acc ata
gag gaa ctg gca aaa ggg tgc gNH2
gctactgagatgaaggagcgtgactgtgtaNH2
Fcttc(Cy3)tcagtagc

all 2'Ome bases, 3' Amine
all 2'Ome bases, 3' Amine

probe
invader
stacker
arrestor
SRT
SRT
FRET probe

aac gag gcg cac cct ttt gcc agt NH2
gct ctg cag gat ttt cat gtc acc ata
tcc tcc aga tat cca aga aga gac tc
act ggc aaa agg cgg gc
cgg agg aaag cag ttg gtg cgc ctc guu aa NH2
cgg aag aaag cag ttg gtg cgc ctc guu aa NH2
Fcaac(Cy3)gttctctcg

3' Amine

all 2'Ome bases

all 2'Ome bases

3' last 5 bases 2'Ome

3' last 5 bases 2'Ome

probe
invader
stacker
arrestor
SRT
FRET probe

gcc gca cgc cgc ctt ttg cca gt NH2
gct ctg cag gat ttt cat gtc acc ata
tcc tcc aga tat cca aga aga gac tc
act ggc aaa agg cgg gc
cgg agg aag cag ttg cgg cgt gcg gca NH2
Fcaac(Cy3)gttctctcg

3' Amine

all 2'Ome bases

all 2'Ome bases

probe
invader
stacker
arrestor
SRT
FRET probe

aac gag gcg cac cct ttt gcc agt tc NH2
gct ctg cag gat ttt cat gtc acc ata
ctc cag ata tcc aag aag aga ctc
gaa ctg gca aaa ggg tgc g
cggaggagcagttggcgccctcgttaaNH2
Fcaac(Cy3)gttctctcg

3' Amine

all 2'Ome bases

all 2'Ome bases

3' last5 bases 2'Ome

hIL-8

probe
probe
invader
arrestor
arrestor
SRT
FRET probe

ccg tca cgc ctc ctt ggc aaa act gca ccNH2
ccg tca cgc ctc ctt ggc aaa act gca cca NH2
ctt tat gca ctg aca tct aag ttc ttt agc act ca
tgg tgc agt ttt gcc aag gag gcg NH2
tgg tgc agt ttt gcc aag gag gcg tg NH2
cggagaagcagttggagggtgacggcNH2
Fcaac(Cy3)gttctctcg

3' Amine

3' Amine

all 2'Ome bases, 3' Amine

all 2'Ome bases, 3' Amine

3'2 bases 2'Ome, 3'Amine

probe
probe
invader

ccg tca cgc ctc cat ctt cac tga ttc ttg gNH2
ccg tca cgc ctc cat ctt cac tga ttc ttg gaNH2
agt gtt gaa gta gat ttg ctt gaa gtt tca ctg ga

3' Amine

3' Amine

stacker	<u>gat acc aca gag aat gaa tttt</u>	all 2'Ome bases	1131
arrestor	<u>tcc aag aat cag tga aga tgg agg cg NH2</u>	all 2'Ome bases, 3' Amine	1132
arrestor	<u>tcc aag aat cag tga aga tgg agg cgt gNH2</u>	all 2'Ome bases, 3' Amine	1133
arrestor	<u>g aat cag tga aga tgg agg cg</u>	all 2'Ome bases	1134
SRT	cggaagaagcagttggaggcgtgacgcgNH2	3'2 bases 2'Ome, 3' Amine	1135
FRET probe	Fcaac(Cy3)gcttcctccg		1136
probe	cgg tca cgc cct tgg ctc aat ttt gct NH2	3' Amine	1137
invader	cca ttc aat tcc tga aat taa agt tgc gat att ctc ttg gca		1138
invader	<u>cc tga aat taa agt tgc gat att ctc ttg gca</u>	5' 10 bases are 2'Ome	1139
invader	cc tga aat taa agt tgc gat att ctc ttg gca		1140
arrestor	<u>agc aaa att gag cca agg gag gcg NH2</u>	all 2'Ome bases, 3' Amine	1141
arrestor	<u>agc aaa att gag cca agg gag gcg tgnNH2</u>	all 2'Ome bases, 3' Amine	1142
SRT	cggaagaagcagttggaggcgtgacgcgNH2	3'2 bases 2'Ome, 3' Amine	1143
FRET probe	Fcaac(Cy3)gcttcctccg		1144
probe	cgg tca cgc ctc cat ctt cac tga ttc ttg NH2	3' Amine	1145
invader	ttc tag caa acc cat tca att cct gaa att aaa gtt cgg ata ttc ta		1146
invader	<u>cc cat tca att cct gaa att aaa gtt cgg ata ttc ta</u>	5' 10 bases 2'Ome	1147
invader	cc cat tca att cct gaa att aaa gtt cgg ata ttc ta		1148
arrestor	<u>cca agg gcc aag gag gcg tNH2</u>	3'2 bases 2'Ome, 3' Amine	1149
SRT	cggaagaagcagttggaggcgtgacgcgNH2		1150
FRET probe	Fcaac(Cy3)gcttcctccg		1151
probe	cgg tca cgc ctc cat ctt cac tga ttc ttc NH2	3' Amine	1152
invader	agt gtt gaa gta gat ttg ctt gaa gtt tca ctg ga		1153
stacker	<u>tfg gat acc aca gag aat gaa tt</u>	all 2'Ome bases	1154
SRT	cggaagaagcagttggaggcgtgacgcgNH2	3'base 2'Ome, 3' Amine	1155
FRET probe	Fcaac(Cy3)gcttcctccg		1156
probe	cgg tca cgc ctc cat ctt cac tga tt NH2	3' Amine	1157
invader	agt gtt gaa gta gat ttg ctt gaa gtt tca ctg ga		1158
stacker	<u>ctt gga tac cac aga gaa tga att</u>	3'base 2'Ome, 3' Amine	1159
SRT	cggaagaagcagttggaggcgtgacgcgNH2		1160
FRET probe	Fcaac(Cy3)gcttcctccg		1161
probe	cgg tca cgc ctc cat ctt cac tga ttc ttg NH2	3' Amine	1162
invader	agt gtt gaa gta gat ttg ctt gaa gtt tca ctg ga		1163
helper	<u>ata-cca-cag-aga-atg-aat-ttt-ttt-atg</u>	all 2'Ome bases	1164
arrestor	<u>tcc aag aat cag tga aga tgg agg cgt gNH2</u>	all 2'Ome bases, 3' Amine	1165

SRT FRET probe	cggaagaagcagttggaggcgtgacggtNH2 Fcaac(Cy3)gcttcctccg	3'base <u>2'Ome</u> , 3'Amine	1166 1167
SRT FRET probe	cggaagaagcagttggtgatctcgcgNH2 Fcaac(Cy3)gcttcctccg	3' Amine	1168 1169
SRT FRET probe	cggaagaagcagttggaggcgtgacggtNH2 Fcaac(Cy3)gcttcctccg	3'base <u>2'Ome</u> , 3'Amine	1170 1171
SRT FRET probe	ccaggaagcaagtggaggcgtgacggu Fcaac(Z21)tgctcgtgg	3' 3bases <u>2'Ome</u>	1172 1173
SRT FRET probe	cggaagaagcagttggtgatctcgcgNH2 Fcaac(Cy3)gcttcctccg	3' 2 last base <u>2'Ome</u> , 3' Amine	1174 1175
SRT FRET probe	cggaagaagcagttggaggcgtgacggtNH2 Fcaac(Cy3)gcttcctccg	3'2 bases <u>2'Ome</u> , 3'Amine	1176 1177
SRT FRET probe	ccaggaagcaagtgggtcgccctcgttt Fcaac(Z21)tgctcgtgg	3' last 3 bases <u>2'Ome</u>	1178 1179
SRT FRET probe	cggaagaagcagttgggtcgccctcgttaaNH2 Fcaac(Cy3)gcttcctccg	3' last5 bases 2'Ome	1180 1181
SRT FRET probe	cggaagaagcagttgggtgatctcgcgcaNH2 Fcaac(Cy3)gcttcctccg	3' Last 2bases 2'Ome, 3' Amine	1182 1183
SRT FRET probe	gctactgagatgaaggagacgtgactgaNH2 Fcttc(Cy3)tcctcagtagc	3' Amine	1184 1185
SRT FRET probe	ccaggaagcagttggaggcgtgacggtNH2 Fcaac(Cy3)gcttcgtgg	3' 2 bases <u>2'Ome</u> , 3'Amine	1186 1187
h3A4 probe h3A4 invader Capture Sequence	agg agc cac tcc att gga tga agc atg tac aga atc ccc ggt tat tta tgc aga		1188 1189

Set 1

86/145

1190
1191

h3A4 probe
h3A4 invader
Capture Sequence

1192
1193
1194
1195
1196

Set 2/Set 3
h3A4 probe
h3A4 arrestor
h3A4 invader
h3A4 stacking oligo
h3A4 stacking oligo
SRT
FRET Oligo

1197
1198
1199
1200

Set 4
h3A4 probe
h3A4 arrestor
h3A4 invader
h3A4 stacking oligo
SRT
FRET Oligo

1201
1202
1203
1204

Set 5
h3A4 probe
h3A4 arrestor
h3A4 invader
SRT
FRET probe

1205
1206
1207
1208

Set 6
h3A4 probe
h3A4 arrestor
h3A4 invader
SRT
FRET probe

1209
1210
1211
1212

Set 7/Set 8
h3A4 probe
h3A4 probe
h3A4 arrestor
h3A4 stacking oligo

87/145

1213

h3A4 invader

SRT

FRET Oligo

Set 9

h3A4 probe

h3A4 arrestor

h3A4 invader

h3A4 stacking oligo

SRT

FRET Oligo

aac gag gog cac cac aga caa tga ga-NH2

tct cat tgt ctg tgg tgc gc-NH2

cct cct tta tat tcc caa gta taa cac tct aa

gag ctc aat gca tgt aca gaa tcc ccg

1214

1215

1216

1217

Set 1/Set 2

h3A4 probe

h3A4 probe

h3A4 invader

h3A4 arrestor

SRT

AACGAGGCGCACCTCTTATCAGAGCTC

AACGAGGCGCACCTCTTATCAGAGCTC-NH2

ttg tgg agg aaa tta ttg aga aat gtt gat ta

GAGCTCTGATAAGAGGTGCG-NH2

1218

1219

1220

1221

Set 1/ Set 2/ Set 3

h3A4 probe

h3A4 arrestor

h3A4 invader

h3A4 stacking oligo

h3A4 stacking oligo

h3A4 stacking oligo

SRT

FRET

ccg tca cgc ctc gcc cca ca - NH2

tgt ggg gcg agg cg

cag cac agg ctg ttg acc atc ata aaa c

cuu-uuc-cau-acu-uuu-uau-gac-auu-c

ctt ttc cag act ttt tat gac att c

ctt ttc cag act ttt tat gac

1222

1223

1224

1225

1226

1227

Set 4/Set 5

h3A4 probe

h3A4 probe

h3A4 invader

h3A4 stacking oligo

SRT

FRET

ccg tca cgc ctc gcc cca ca

ccg tca cgc ctc gcc cca ca - HEX

cag cac agg ctg ttg acc atc ata aaa c

cuu-uuc-cau-acu-uuu-uau-gac-auu-c

1228

1229

1230

1231

Set 6/ Set 7/ Set 8

h3A4 probe

ccg tca cgc ctc gcc cca cc - NH2

1232

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h3A4 probe ccg tca cgc ctc gcc cca cg - NH2 1233
h3A4 probe ccg tca cgc ctc gcc cca ct - NH2 1234
h3A4 arrestor tgt ggg gcg agg cg 1235
h3A4 invader cag cac agg ctg ttg acc atc ata aaa c 1236
h3A4 stacking oligo cuu-uuc-cau-acu-uuu-uau-gac-auu-c 1237
SRT
FRET

Set 1
h3A4 probe ccg tca cgc ctg atc ata aaa gcc c -NH2 1238
h3A4 arrestor ggg ctt tta tga tca ggc g 1239
h3A4 invader cag cac agg ctg ttg acc c 1240
h3A4 stacking oligo cac act ttt cca tac ttt tta tg 1241
SRT
FRET

Set 2
h3A4 probe aac gag gcg cac cca ttg gat gaa g - NH2 1242
h3A4 arrestor ctt cat cca atg ggt gcg c 1243
h3A4 invader gta cag aat occ cgg tta ttt atg cag ta 1244
h3A4 stacking oligo ccc atc ttc att tca gag 1245
SRT
FRET

Set 1
h3A5 probe gtg gcg tat cgt gtc taa ttt caa g 1246
h3A5 invader aat ggg ttt ttc tgg ttg aag aag tcc ttg a 1247
Capture Sequence

Set 2/Set 3
h3A5 probe AACGAGGCGCACCGTGCTCTAATTTCAAG 1248
h3A5 probe AACGAGGCGCACCGTGCTCTAATTTCAAGGG-Pi 1249
h3A5 arrestor CTTGAAATTAGACACGGTGCG-NH2 1250
h3A5 invader aat ggg ttt ttc tgg ttg aag aag tcc ttg a 1251
SRT
FRET

Set 4
h3A5 probe AACGAGGCGCACCGTGCTCTAATTTCAAG 1252
h3A5 arrestor CTTGAAATTAGACACGGTGCG-NH2 1253

89/145

1254
1255

h3A5 invader
h3A5 stacking oligo
SRT
FRET
aat ggg ttt ttc tgg ttg aag aag tcc ttg a
ggg atc tgt gtt tct tta caa ggt

1256
1257
1258
1259

Set 5
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET
AACGAGGCGCACCGTGCTCTAATTTCAAG
ctt gaa att aga cac ggt tct c
ggg ttt tct ggt tga aga agt cct tga
ggg atc tct gtt tct

1260
1261
1262

Set 6
h3A5 probe
h3A5 arrestor
h3A5 invader
SRT
FRET probe
AACGAGGCGCACCGTGCTCTAATTTCAAGGG-NH2
CCCTTGAAATTAGACACGGTGCG-NH2
aat ggg ttt ttc tgg ttg aag aag tcc ttg a
FL-caa-c(cy3)g-ctt-cct-cg

1263

1264
1265
1266
1267
1268
1269

Set 7/Set 8
h3A5 probe
h3A5 probe
h3A5 arrestor
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET
aac gag gcg cac cgt gtc taa ttt caa gg-NH2
aac gag gcg cac cgt gtc taa ttt caa gg
cct tga aat tag aca cgg tgc gc-NH2
cct tga aat tag aca cgg tgc gc
aat ggg ttt ttc tgg ttg aag aag tcc ttg a
gga tct gtg ttt ctt tac aag gtt tga agg ag

1270
1271
1272
1273

Set 9
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET
aac gag gcg cac cgt gtc taa ttt caa-NH2
ttg aaa tta gac acg gtc cgc-NH2
aat ggg ttt ttc tgg ttg aag aag tcc ttg a
ggg gat ctg tgt ttc ttt aca agg

1274

Set 10
h3A5 probe
aac gag gcg cac cgt gtc taa ttt ca - NH2

90/145

1275
1276
1277

h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

tga aat tag aca cgg tgc gc
ggg ttt tct ggt tga aga agt cct tga
agg gga tct gfg ttt ct

1278
1279

Set 1
h3A5 probe
h3A5 invader
Capture Sequence

tgg cgt atc tga ccc ttt ggg aat
gaa gag cat aag ttg gaa tca cca cca ta

1280
1281

Set 1
h3A5 probe
h3A5 invader
Capture Sequence

ata cgg ttg gtc ctc tca agt cta
ccc cat tga ttt caa cat ctt tct tgc aac

1282
1283
1284
1285

Set 2/Set 3
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

aac gag gcg cac gcg tgt cta att tc - NH2
gaa att aga cac gcg tgc gc
ggg ttt tct ggt tga aga agt cct tc
ccg ggg atc tgt gtt tc

1286
1287
1288
1289

h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

ccg tca cgc ctc gcg tgt cta att tc -NH2
gaa att aga cac gcg agg cg
ggg ttt tct ggt tga aga agt cct tc
ccg ggg atc tgt gtt tc

1290
1291
1292
1293

Set 1
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET
Set 2

aac gag gcg cag ttc ata cgt tcc -NH2
gga acg tat gaa ctg cgc
cca gca cag gga gtt gac ca
cca cat ttt tcc ata ctt t

9/1/14

1294
1295
1296
1297

h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

1298
1299
1300
1301
1302
1303
1304

Set 1-Set 4
h3A5 probe
h3A5 probe
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
h3A5 stacking oligo
SRT
FRET

1305
1306
1307
1308

Set 5
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

1309
1310
1311
1312

Set 6
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT
FRET

1313
1314
1315
1316

Set 7
h3A5 probe
h3A5 arrestor
h3A5 invader
h3A5 stacking oligo
SRT

92/145

FRET

Set 8

h3A5 probe aac gag gcg cac agt tga cct tc - NH2
h3A5 arrestor **tga agg tca act gtg cgc**
h3A5 invader gtg atg gcc agc aca ggg c
h3A5 stacking oligo **ata cgt tcc cca cat ttt tc**

SRT

FRET

1317
1318
1319
1320

Set 1

h3A7 Probe tgg cgt atc tgg att aaa tct taa aag
h3A7 Invader gac ttt tat tga gag aac gaa tgg atc taa a
Capture Oligo

1321
1322

Set 2

h3A7 Primary Probe AACGAGGCGCACTGGATTAAATCTTAAAG
h3A7 Invader gac ttt tat tga gag aac gaa tgg atc taa a
h3A7 Arrestor **CTTTAAGATTATAATCCAGTGG-NH2**

SRT

FRET

1323
1324
1325

Set 3

h3A7 Primary Probe AACGAGGCGCACTGGATTAAATCTTAAAG
h3A7 Invader gac ttt tat tga gag aac gaa tgg atc taa a
h3A7 Arrestor **CTTTAAGATTATAATCCAGTGG-NH2**
h3A7 Stacking Oligo **ctt ctt ggt gtt ttc ca**

SRT

FRET

1326
1327
1328
1329

Set 4

h3A7 Probe agg agc cac tca tcc ctt gac t
h3A7 Invader oligo ctt agg gaa atc agg ctc cac tta cgg ta
Capture Oligo

1330
1331

Set 5/Set 6

h3A7 Primary Probe AACGAGGCGCACCTCATCCCTTGACT
h3A7 Primary Probe AACGAGGCGCACCTCATCCCTTGACT-NH2
h3A7 Arrestor **AGTCAAGGGAIGAGGIGCG-NH2**
h3A7 Invader oligo ctt agg gaa atc agg ctc cac tta cgg ta

1332
1333
1334
1335

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SRT
FRET

Set 7 - Set 10

h3A7 Primary Probe
h3A7 Arrestor
h3A7 Invader oligo
h3A7 Stacking Oligo
h3A7 Stacking Oligo
h3A7 Stacking Oligo
h3A7 Stacking Oligo

aac gag gcg cac ctc atc cct tga c-NH2
gtc aag gga tga ggt cgc c-NH2
ctt agg gaa atc agg ctc cac tta cgg ta
tca gcc ttt aga aca atg ggt ttt tct gtt ag3'
tca gcc ttt aga aca atg ggt ttt tct g
ctc agc ctt tag aac aat ggg ttt ttc t
ctc agc ctt tag aac aat ggg ttt ttc t

SRT
FRET

Set 11

h3A7 Primary Probe
h3A7 Primary Probe
h3A7 Arrestor
h3A7 Invader oligo
h3A7 Stacking Oligo

aac gag gcg cac ctc atc cct tga-NH2
aac gag gcg cac ctc atc cct tga c
tca agg gat gag ggt cgc-NH2
ctt agg gaa atc agg ctc cac tta cgg ta
ctc agc ctt tag aac aat ggg ttt ttc tgt tag

SRT
FRET

Set 1

h3A7 Probe
h3A7 Invader
Capture Sequence

ata cgg ttg gla aag taa ttt gag gt
gaa gcc cgt ctt cat ttc agg gtt cta ttt c

Set 2

h3A7 Primary Probe
h3A7 Invader
h3A7 Arrestor

AACGAGGCGCACGTAAAGTAATTTGAGGT
gaa gcc cgt ctt cat ttc agg gtt cta ttt c
ACCICAAATTACTTTACGIGCG-NH2

SRT
FRET

Set 3

h3A7 Primary Probe
h3A7 Invader
h3A7 Arrestor
h3A7 Stacking Oligo

AACGAGGCGCACGTAAAGTAATTTGAGGT
gaa gcc cgt ctt cat ttc agg gtt cta ttt c
ACCICAAATTACTTTACGIGCG-NH2
ctc tgg tgt tct ggg

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1336
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1351
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1353
1354
1355
1356

SRT
FRET

Set 1

h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo

SRT
FRET

1357
1358
1359
1360

Set 2 - Set 4

h3A7 probe
h3A7 probe
h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo

SRT
FRET

1361
1362
1363
1364
1365
1366

Set 1

h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo

SRT
FRET

1367
1368
1369
1370

Set 2

h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo

SRT
FRET

1371
1372
1373
1374

Set 1

h3A7 probe
h3A7 arrestor

SRT
FRET

1375
1376

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1377
1378

h3A7 invader
h3A7 stacking oligo
SRT
FRET

gga aat cag gct cca ctt acg gtc a
act cag cct tta gaa caa tg

1379
1380
1381
1382

Set 1
h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo
SRT
FRET

cog tca cgc ctc taa agt aat ttg agg tc -NH2
gac ctc aaa tta ctt tag agg cg
cgt ctt cat ttc agg gtt cta ttt ga
tct ggt gtt ctg gg

1383
1384
1385
1386

Set 2
h3A7 probe
h3A7 arrestor
h3A7 invader
h3A7 stacking oligo
SRT
FRET

aac gag gcg cac taa agt aat ttg agg tc - NH2
gac ctc aaa gga ctt tag tgc gc
cgt ctt cat ttc agg gtt cta ttt ga
tct ggt gtt ctg gg

1387
1388

Set 1
r4A1 Probe
r4A1 Invader
Capture Sequence

tgg-cgt-atc-tag-gct-ttg-ctt-cc
ttc atg tag tca ggg tca tag aca att aag a

1389
1390
1391
1392

Set 2
r4A1 Primary Probe
r4A1 Arrestor
r4A1 Arrestor
r4A1 Invader
FRET Probe 1

AACGAGGCGCAC TAGGCTTTGCTTCC
GGAAGCAAAGCCTAGTGCG-NH2
gga agc aaa gcc tag tgc gc-NH2
ttc atg tag tca ggg tca tag aca att aag a

1393
1394
1395

Set 3
r4A1 Primary Probe
r4A1 Arrestor
r4A1 Invader
SRT
FRET Probe 1

aac gag gcg cac tag gct ttg ctt ccc-NH2
ggg aag caa agc cta gtc cgc-NH2
ttc atg tag tca ggg tca tag aca att aag a

Set 4
r4A1 Primary Probe aac gag gcg cac tag gct ttg ctt c-NH2
r4A1 Arrestor gaa gca aag cct agt gcg c
r4A1 Stackers ccc aga acc atc gag gaa agg c
r4A1 Invader ttc atg tag tca ggg tca tag aca att aag a
SRT
FRET Probe 1

Set 5
r4A1 Primary Probe aac gag gcg cac tag gct ttg ctt-NH2
r4A1 Arrestor aag caa agc cta gtg cgc-NH2
r4A1 Invader ttc atg tag tca ggg tca tag aca att aag a
r4A1 Stackers ccc cag aac cat cga gga aag g
r4A1 Stackers ccc cag aac cat cga gga aag g
SRT
FRET Probe 1

Set 6
r4A1 Primary Probe aac gag gcg cac tag gct ttg ctt-NH2
r4A1 Primary Probe aac gag gcg cac tag gct ttg ct - HEX
r4A1 Probe aac gag gcg cac tag gct ttg ct
r4A1 Arrestor agc aaa gcc tag tgc gc-NH2
r4A1 Arrestor agc aaa gcc tag tgc gc
r4A1 Invader ttc atg tag tca ggg tca tag aca att aag a
r4A1 Stackers tcc cca gaa cca tgc agg aaa gg
r4A1 Stackers tcc cca gaa cca tgc agg aaa gg
SRT
FRET Probe 1

Set 1
r4A1 Probe ata cgg ttg gtc ttg acc tgc c
r4A1 Invader agg aga tat gtt gaa aga ttt cta tag agg ac
Capture Sequence

Set 2
r4A1 Primary Probe AACGAGGCGCACGCTCTTGACCTGCC
r4A1 Arrestor GGCAGGTCAGACGTCG-NH2
r4A1 Invader agg aga tat gtt gaa aga ttt cta tag agg ac

SRT			
FRET Probe 1			
Set 3	AACGAGGGCGCACGTCTTGACCTGC-Pi GCGAGGTC AAGACG TGCG-NH2 agg aga tat gtt gaa aga ttt cta tag agg ac		1418 1419 1420
r4A1 Primary Probe			
r4A1 Arrestor			
r4A1 Invader			
SRT			
FRET Probe 1			
Set 1	tgg cggt atc tta gat gga gla agg a att cct cat aat tca aaa ggg act tag tag gt		1421 1422
r4A1 Probe			
r4A1 Invader			
Set 2	AACGAGGGCGCACTTAGATGGAGTAAGGA TCCTTACTCCAICTAAGT GCG-NH2		1423 1424
r4A1 Primary Probe			
r4A1 Arrestor			
SRT			
FRET Probe 1			
Set 1	aac gag gcg cac tgg ata ccc ttg gg-NH2 ccc aag ggt atc cag tgc gc-NH2 ggt gga gac cat aaa tgg aga gtg tga cta		1425 1426 1427
r4A1 Primary Probe			
r4A1 Arrestor			
r4A1 Invader			
SRT			
FRET Probe 1			
Set 1	aac gag gcg cac agg tgt ctg gag taa aag-NH2 ctt tta ctc cag aca cct gtg cgc-NH2 glc cac gca caa gct ggg ac		1428 1429 1430
r4A2 Probe			
r4A2 Arrestor			
r4A2 Invader			
SRT			
FRET Probe 1			
Set 1	aac gag gcg cac aga agg ccc ctt-NH2 aag ggg cct tct gtg cgc-NH2 cct tgaaca gca cca gaa ala gac tga gca c gga aga acc cag aga cac cat cc		1431 1432 1433 1434
r4A2 Probe			
r4A2 Arrestor			
r4A2 Invader			
r4A2 stacking oligo			
SRT			

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FRET Probe 1

Set 2

r4A2 Probe
r4A2 Arrestor
r4A2 Invader
SRT
FRET Probe 1

1435
1436
1437

Set 3

r4A2 Probe
r4A2 Arrestor
r4A2 Invader
SRT
FRET Probe 1

1438
1439
1440

Set 4

r4A2 Probe
r4A2 Probe
r4A2 Probe
r4A2 Arrestor
r 4A2 Arrestor
r4A2 Invader
SRT
FRET Probe 1

1441
1442
1443
1444
1445
1446

Set 1

r4A3 Probe
r4A3 Arrestor
r4A3 Invader
SRT
FRET Probe 1

1447
1448
1449

Set 2

r4A3 Probe
r4A3 Arrestor
r4A3 Invader
r4A3 stacking oligo
SRT
FRET Probe 1

1450
1451
1452
1453

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Set 3

r4A3 Probe
 r4A3 Probe
 rCYP 4A3 Probe
 r4A3 Arrestor
 rCYP 4A3 Arrestor
 r4A3 Invader
 r4A3 stacking oligo
 SRT
 FRET Probe 1

1454
 1455
 1456
 1457
 1458
 1459
 1460

Set 1

r2B1 probe
 r2B1 invader
 Capture Sequence

1461
 1462

Set 2/ Set 3

r2B1 probe
 r2B1 probe
 r2B1 invader
 Capture Sequence

1463
 1464
 1465

Set 4

r2B1 probe
 r2B1 invader
 Capture Sequence

1466
 1467

Set 5 - Set 7

r2B1 probe
 r2B1 arrestor
 r2B1 arrestor
 r2B1 arrestor
 r2B1 invader
 SRT
 FRET

1468
 1469
 1470
 1471
 1472

Set 8

r2B1 probe

1473

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1474
1475
1476

ttg-atg-acc-gca-ggt-gcg-cc-Pi

tgg ata act gca tca gtg tat ggc att tta a
ggg ttg gta gcc tgt gtg agc cga t

r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

1477
1478
1479

aac-gag-gcg-cac-ctg-cgg-tca-tca-a-NH2

ttg-atg-acc-gca-ggt-gcg-NH2

tgg ata act gca tca gtg tat ggc att tta a

Set 9
r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

1480
1481
1482

ggc-aac-gag-gca-cac-ctg-cgg-tca-tca-ag-Pi

ttg-atg-acc-gca-ggt-gcg-cc-Pi

tgg ata act gca tca gtg tat ggc att tta a

Set 10
r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

1483
1484
1485

aac gag ggg cac ctg cgg tca tca ag-NH2

ctt gat gac cgc agg tgc c-NH2

tgg ata act gca tca gtg tat ggc att tta a

Set 11
r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

1486
1487
1488

aac gag gcg cac ctg cgg tca tca agg-NH2

cct tga tga ccg cag gtg cg-NH2

tgg ata act gca tca gtg tat ggc att tta a

Set 12
r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

1489
1490
1491

atg acg tga cag acc tgc ggt cat caa g-NH2

ctt gat gac cgc agg tct gt-NH2

tgg ata act gca tca gtg tat ggc att tta a

Set 13
r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

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Set 14

r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

aac gag gcg cac ctg agg tca tca a-NH2
ttg atg acc tca ggt gcg-NH2
tgg ata act gca tca gtg tat ggc att tta a

1492
1493
1494

Set 15

r2B1 probe
r2B1 arrestor
r2B1 invader
SRT
FRET

cag tca cgt ctg ctg cgg tca tca ag-NH2
ctt gat gac cgc agg aga cg-NH2
tgg ata act gca tca gtg tat ggc att tta a

1495
1496
1497

Set 16

r2B1 probe
r2B1 invader
r2B1 arrestor
SRT
FRET

cag tca cgt ctg act gcg gtc atc aag-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
ctt gat gac cgc agt gag acg-NH2

1498
1499
1500

Set 17

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

cag tca cgt ctg act gcg gtc atc aa-NH2
ttg atg acc gca gtg aga cg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
ggg ttg gta gcc tgt gtg agc cga t

1501
1502
1503
1504

Set 18

r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

cag tca cgt ctg act gcg gtc atc a-NH2
tga tga ccg cag tga gac g-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
agg gtt ggt agc ctg tgt gag ccg a

1505
1506
1507
1508

Set 19

r2B1 probe

cag tca cgt ctg act gcg gtc atc aag-NH2

1509

1510
1511
1512

ctt gat gac cgc agt gag acg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
ggg tgg tag cct gtg tga gcc gat c

r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

1513
1514
1515
1516

cag tca cgt ctc act gcg gtc at-NH2
atg acc gca gtg aga cg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
caa ggg ttg gta gcc tgt gtg agc c

Set 20
r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

1517
1518
1519
1520

ccg tca cgc ctc act gcg gtc atc a-NH2
tga tga cgc cag tga ggc g-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
agg gtt ggt agc ctg tgt gag ccg a

Set 21
r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

1521
1522
1523
1524

ccg tca cgc ctc act gcg gtc atc-NH2
gat gac cgc agt gag gcg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
aag ggt tgg tag ccg gtg tg

Set 22
r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker

1525
1526
1527
1528
1529

ccg tca cgc ctc act gcg gtc at-NH2
ccg tca cgc ctc act gcg gtc at
atg acc gca gtg agg cg-NH2
gtg gat aac tgc atc agt gta tgg cat ttt c
caa ggg ttg gta gcc tgt gtg agc c

Set 23
r2B1 probe
r2B1 probe
r2B1 arrestor
r2B1 invader
r2B1 stacker
SRT
FRET

1530
1531

Set 1
r2B1 invader
r2B1 probe
atg gtg tct ttg gtg act ctg tgt ggt aca
aac-gag-gcg-cac-tcc-aat-agg-gac-aag

1532

ctt-gtc-cct-att-gga-gtg-cgc-c

r2B1 arrestor
SRT
FRET

Set 1

gcg gcg tac agc cgg tgt gag c
cat tt act gcg gtc atc aag ggt tgg tc

Capture Sequence

1533
1534

Set 1

tgg cgt atg agc cgg tgt gag c
cat tt act gcg gtc atc aag ggt tgg tc

Capture Sequence

1535
1536

Set 1

gga tga ctg cat cag tgt atg gca tt tgc
aac-gag-gcg-cac-gta-tca-tca-tca-agg
cct-tga-tga-tcg-tac-gtg-cgc-c-NH2

r2B2 invader
r2B2 probe
r2B2 arrestor
SRT
FRET

1537
1538
1539

Set 1

atg gtg tct ttg gtg act ctg tgt ggt aac
tgg cgt atg acc aat tgg ggc aa
gat ctg caa atc tct gaa tct cgt gga tg
tct tgg aga gca ggt acc ctg gga ac

r2B2 invader
r2B2 probe
r2B2 stacker
r2B2 invader stacker

1540
1541
1542
1543

Set 2

tgg cgt atg acc aat tgg ggc aag
atg gtg tct ttg gtg act ctg tgt ggt aac
atc tgc aaa tct ctg aat ctg gtc gat ga
tct tgg aga gca ggt acc ctg gga ac

r2B2 probe
r2B2 invader
r2B2 stacker
r2B2 invader stacker

1544
1545
1546
1547

Set 3

aac-gag-gcg-cac-acc-aat-tgg-ggc-aag
aac gac gcg cac acc aat tgg ggc aag
cct-gcc-cca-att-ggt-gtg-cgc-c-NH2
atg gtg tct ttg gtg act ctg tgt ggt aac

r2B2 probe
r2B2 probe
r2B2 arrestor
r2B2 invader
SRT
FRET

1548
1549
1550
1551

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Set 4

r2B2 probe
r2B2 arrestor
r2B2 invader
SRT
FRET

aac-gag-gcg-cac-acc-aat-tgg-ggc-aag-Pi
ctt-gcc-cca-att-ggt-gtg-cgc-c-Pi
atg gtg tct ttg gtg act ctg tgt ggt aac

1552
1553
1554

Set 5

r2B2 arrestor
r2B2 probe
r2B2 invader
r2B2 stacker
SRT
FRET

ctt gcc cca att ggt gtg cg-NH2
aac-gag-gcg-cac-acc-aat-tgg-ggc-aag-NH2
atg gtg tct ttg gtg act ctg tgt ggt aac
atc tgc aaa tct ctg aat ctc gtg gat ga

1555
1556
1557
1558

Set 6

r2B2 probe
r2B2 arrestor
r2B2 invader
SRT
FRET

ggc-aac-gag-gca-cac-caa-ttg-ggg-caa-g
ctt-gcc-cca-att-ggt-gtg-cgc-c-NH2
atg gtg tct ttg gtg act ctg tgt ggt aac

1559
1560
1561

Set 7

r2B2 probe
r2B2 arrestor
r2B2 invader
SRT
FRET

aac gag gcg cac acc aat tgg ggc aag atc-NH2
gat ctt gcc cca att ggt gtg cg-NH2
atg gtg tct ttg gtg act ctg tgt ggt aac

1562
1563
1564

Set 8

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

aac gag gcg cac acc aat tcg ggc aag-NH2
ctt gcc cga att ggt gtg cg-NH2
atg gtg tct ttg gtg act ctg tgt ggt aac
atc tgc aaa tct ctg aat ctc gtg gat ga

1565
1566
1567
1568

Set 9

r2B2 probe

cag tca cgt ctc atg gtg gcc tgt g-NH2

1569

1570
1571

gta tgg cat ttg ggt acg atc aag ggc
cac agg cca tga gac g-NH2

r2B2 invader
r2B2 arrestor
SRT
FRET

1572
1573
1574
1575

cag tca cgt ctc aga gcc aat cac ctg-NH2
cga tca tca agg gat ggt ggc ctg tgc
cag ctg att ggc tct gag acg-NH2
atc aat ctc ctt ttg gac ttg ctc tgc g

Set 10
r2B2 probe
r2B2 invader
r2B2 arrestor
r2B2 stacker
SRT
FRET

1576
1577
1578
1579

cag tca cgt ctc aga gcc aat cac ct-NH2
cga tca tca agg gat ggt ggc ctg tgc
agg tga ttg gct ctg aga cg-NH2
gat caa tct cct ttt gga ctt tct ctg c

Set 11
r2B2 probe
r2B2 invader
r2B2 arrestor
r2B2 stacker
SRT
FRET

1580

FAM-cag tca cgt ctc aga gcc aat cac ct-NH2

Set 12
r2B2 probe

1581
1582
1583
1584
1585

cag tca cgt ctc aga gcc aat cac c-NH2
ggg gat tgg ctc tga gac g-NH2
cga tca tca agg gat ggt ggc ctg tgc
gat caa tct cct ttt gga ctt tct ctg c
tga tca atc tcc ttt tgg act ttc tct gc

Set 13 / Set 14
r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
r2B2 stacker
SRT
FRET

1586
1587
1588
1589

cag tca cgt ctc aga gcc aat cac-NH2
gtg att ggc tct gag acg-NH2
ctg atc aat ctc ctt ttg gac ttg ctc tgc g
cga tca tca agg gat ggt ggc ctg tgc

Set 15
r2B2 probe
r2B2 arrestor
r2B2 stacker
r2B2 invader
SRT
FRET

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Set 16

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

cag tca cgt ctc aga gcc aat cac ct-NH2
agg tga ttg cct ctg aga cg-NH2
cga tca tca agg gat ggt gcc ctg tgc
gat caa tct cct ttg gga ctt tct ctg c

1590
1591
1592
1593

Set 17

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

cag tca cgt ctc aga gcc aat cac ctg-NH2
cag gtg att gcc tct gag acg-NH2
cga tca tca agg gat ggt gcc ctg tgc
atc aat ctc ctt ttg gac tt ctc tgc g

1594
1595
1596
1597

Set 18

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

ccg tca cgc ctc aga gcc aat cac ct-NH2
agg tga ttg gct ctg agg cg-NH2
cga tca tca agg gat ggt gcc ctg tgc
gat caa tct cct ttg gga ctt tct ctg c

1598
1599
1600
1601

Set 19

r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker
SRT
FRET

ccg tca cgc ctc aga gcc aat cac c-NH2
ggt gat tgg ctc tga gcc g-NH2
cga tca tca agg gat ggt gcc ctg tgc
tga tca atc tcc ttg act ttc tct gc

1602
1603
1604
1605

Set 20-21

r2B2 probe
r2B2 probe
r2B2 arrestor
r2B2 invader
r2B2 stacker

ccg tca cgc ctc aga gcc aat cac-NH2
ccg tca cgc ctc aga gcc aat cac
gtg att gcc tct gag gcg-NH2
cga tca tca agg gat ggt gcc ctg tgc
ctg atc aat ctc ctt ttg gac tt ctc tgc g

1606
1607
1608
1609
1610

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Set 22

r2B2 probe
r2B2 invader
r2B2 arrestor
SRT
FRET

1611
1612
1613

Set 23

r2B2 probe
r2B2 arrestor
r2B2 invader
SRT
FRET

1614
1615
1616

r2B2 probe
r2B2 invader

1617
1618

r3A1 probe
r3A1 probe
r3A1 invader
r3A1 probe
r3A1 probe
r3A1 arrestor
r3A1 probe
r3A1 probe
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 arrestor
r3A1 probe
r3A1 probe
r3A1 probe

1619
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1634
1635

agg agc cac ggg tcc caa atc
FL-agg agc cac ggg tcc caa atc
toc cct gtt tct tga aaa gtc cat gtg tga
F-tcg cgt agt cgg gtc cca aat c
cat-ctt-cgc-gga-cgg-gtc-cca-aat-c
gat-ttg-gga-ccc-ggt-gcg-cc-NH2
aac-gag-gcg-cac-cgg-gtc-cca-aat-c-NH2
cat-ctt-cgc-gga-cgg-gtc-cca-aat-c - NH2
gga-ttt-ggg-acc-cgt-ccg-cg - NH2
gga-ttt-ggg-acc-cgt-ccg-cg - NH2
gga-ttt-ggg-acc-cgt-ccg-cg - NH2
gga-ttt-ggg-acc-cgt-ccg-cg - NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2
gat-ttg-gga-ccc-ggt-gcg-c-NH2

aac gag ggc cac cgg gtc cca aat c-Pi

1636

r3A1 invader	tcc cct gtt tct tga aaa gtc cat gtg tga	1637
r3A1 probe	aac gag gcg cac cgg gtc cca aat c-NH2	1638
r3A1 arrestor	gat ttg gga ccc ggt gcg-NH2	1639
r3A1 probe	aac gag gcg cac cgg gtc cca aat c-NH2	1640
r3A1 arrestor	gga ttt ggg acc cgg tgc gc-NH2	1641
r3A1 probe	aac gag gcg cac cgg gtc cca aat-NH2	1642
r3A1 arrestor	att tgg gac ccg gtc cgc-NH2	1643
r3A1 stacker	ccg tag agg agc acc agg acg	1644
r3A1 probe	aac gag gcg cac cgg gtc cca aa-NH2	1645
r3A1 arrestor	ttt ggg acc cgg tgc gc-NH2	1646
r3A1 stacker	tcc gta gag gag cac cag ga	1647
r3A1 probe	cag tca cgt ctc cgg gtc cca aa-NH2	1648
r3A1 arrestor	ttt ggg acc cgg aga cg-NH2	1649
r3A1 stacker	tcc gta gag gag cac cag ga	1650
r3A1 probe	ccg tca cgc ctc cgg gtc cca aa-NH2	1651
r3A1 arrestor	ttt ggg acc cgg agg cg-NH2	1652
r3A1 stacker	tcc gta gag gag cac cag ga	1653
r3A1 stacker	tcc gta gag gag cac cag ga	1654
r3A1 probe	aac gag gcg cac cgg gtc cca-NH2	1655
r3A1 arrestor	tgg gac ccg gtc cgc-NH2	1656
r3A1 probe	ccg tca cgc ctc cgg gtc cca-NH2	1657
r3A1 arrestor	tgg gac ccg gag gcg-NH2	1658
r3A1 stacker	aat ccg tag agg agc acc agg	1659
r3A1 probe	aac gag gcg cac cgg gtc cca	1660

r3A2 invader	ttc ctt gtt tct taa aaa ttc cat gtc taa	1661
r3A2 invader	att tt cga tac ttt tta tag cac tcc atc	1662
r3A2 probe	tgg cgt atc tgg gtt cca agt c	1663
r3A2 probe	aac gag gcg cac gtc aaa tct ccc taa	1664
r3A2 probe	aac-gag-gcg-cac-tgg-gtt-cca-agt-c	1665
r3A2 arrestor	tta ggg aga ttt gac gtc cgc c - NH2	1666
r3A2 arrestor	gac-ttg-gaa-ccc-agt-gcg-cc-NH2	1667
r3A2 probe	aac gag gcg cac tgg gtt cca agt c	1668
r3A2 probe	aac-gag-gcg-cac-tgg-gtt-cca-agt-c-Pi	1669
r3A2 arrestor	gac ttg gaa ccc agt gcg-NH2	1670
r3A2 probe	aac gag gcg cac tgg gtt cca agt cg-NH2	1671
r3A2 arrestor	cga ctt gga acc cag tgc gc-NH2	1672
r3A2 probe	aac gag gcg cac aac cat caa gtt cta ta-NH2	1673

r3A2 invader	gga atc gtc act act gac cct ttg ggt ata aac ac	1674
r3A2 stacker	tct ttt tta cag act ctc tca agt cta tta cc	1675
r3A2 arrestor	tat aga act tga tgg ttg tgc gc-NH2	1676
r3A2 probe	aac gag gcg cac aac cat caa gtt cta-NH2	1677
r3A2 stacker	tat ctt ttt tac aga ctc tct caa gtc tat tac c	1678
r3A2 arrestor	tag aac ttg atg gtt gtt ggc-NH2	1679
r3A2 probe	cag tca cgt ctc ctc ggc agg gc-NH2	1680
r3A2 invader	cac aat atc gta ggt agg agg tgc ctt aa	1681
r3A2 arrestor	gcc ctg ccg agg aga cg-NH2	1682
r3A2 probe	cag tca cgt ctc ctc ggc agg g-NH2	1683
r3A2 stacker	ccc cat cga tct cct cct g	1684
r3A2 arrestor	ccc tgc cga gga gac g-NH2	1685
r3A2 probe	cag tca cgt ctc ctc ggc agg-NH2	1686
r3A2 stacker	gcc cca tgg atc tcc tcc	1687
r3A2 arrestor	cct gcc gag gag acg-NH2	1688
r3A2 probe	cag tca cgt ctc ctc ggc ag-NH2	1689
r3A2 stacker	ggc ccc atc gat ctc ctc	1690
r3A2 arrestor	ctg ccg agg aga cg-NH2	1691
r3A2 probe	ccg tca cgc ctc ctc ggc agg-NH2	1692
r3A2 arrestor	cct gcc gag gag gcg-NH2	1693
r3A2 stacker	gcc cca tgg atc tcc tcc	1694
r3A2 probe	ccg tca cgc ctc ctc ggc agg	1695
hICAM-1 probe	ccg tca cgc ctc ggc ttg tgt gtt c-NH2	1696
hICAM-1 invader	ccg gga tag gtt cag gga ggc gtc	1697
hICAM-1 stacker	ggt ttc atg ggg gtc cct	1698
hICAM-1 arrestor	gaa cac aca agc cga ggc g	1699
hVCAM-1 probe	ccg tca cgc ctc ggc ttt gtt tgg-NH2	1700
hVCAM-1 arrestor	cca aac aaa ggc gag gcg	1701
hVCAM-1 invader	ggg caa cat tga cat aaa gfg ttg ggc tac tct c	1702
hVCAM-1 stacker	ggt cga att cca tgt cat c	1703
hVCAM-1 probe	ccg tca cgc ctc ggc ttt gtt tg-NH2	1704
hVCAM-1 arrestor	caa aca aag gcg agg cg	1705
hVCAM-1 stacker	ggt tgg aat tcc atg tca tc	1706
hGAPDH probe	aac gag gcg cac gct cct gga aga tg-NH2	1707
hGAPDH arrestor	cat ctt cca gga gcg tgc gcc-NH2	1708

1709

hGAPDH invader cac ttg att ttg gag gga tct ca

Secondary system oligos

Capture Oligo	aaa agt ggc tcc t-(biotin)c	1710
Capture Oligo	aaa aga ggc tcc gct-(biotin)c	1711
Capture Oligo	aaa atg tac gcc gct-(biotin) c	1712
Capture Oligo	aaa aga tac gcc aca gct-(biotin) c	1713
Capture Oligo	aaa acc aac cgt atg aac t-(biotin) c	1714
Capture Oligo	aaa atc ata cgc cac t-(biotin)c	1715
SRT	cgg-agg-aag-cag-ttg-gtg-tgc-ctc-gtt-gcc-tt-NH2	1716
SRT	cgg agg aag cag ttg gtg ccc ctc gtt aa-NH2	1717
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa-NH2	1718
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa-NH2	1719
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa	1720
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa	1721
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa	1722
SRT	cgg aag aag cag ttg gtg cgc ctc gtt aa	1723
SRT	cgg aag aag cag ttg gag gcg tga cgg t-NH2	1724
SRT	cgg aag aag cag ttg gag gcg tga cgg a-NH2	1725
SRT	cgg aag aag cag ttg gag gcg tga cgg a	1726
SRT	cgg aag aag cag ttg gag gcg tga cgg t	1727
SRT	cgg aag aag cag ttg gag gcg tga cgg t	1728
SRT	cgg aag aag cag ttg gag gcg tga cgg t	1729
SRT	cgg aag aag cag ttg gag gcg tga cgg a	
FRET probe	FL-caa c(cy3)gc ttc ctc	1730
FRET probe	FL-caa c(cy3)gc ttc ctc c	1731
FRET probe	FL-caa-c(cy3)g-ctt-cct-ccg	1732
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg-uu	1733
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg-uuu-u	1734
FRET probe	FL-caa-c(cy3)g-ctt-cct-cg-NH2	1735

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Oligo sequence descriptions:

5' to 3' direction, 2'-Ome nts are bolded and underlined, internal modifications are defined in (), ASR of primary probes are underlined
C18ddC = C18 linker+ddideoxy C, ddC = dideoxy C, FI = Fluorescein

Oligo Type	Oligo Sequence	SEQ ID NO
HUMAN IL-2		
Human IL-2 Probe	FI- CGAAATTAATACGCCIICTTGGGCAIGTAC -C18ddC	1736
Human IL-2 Probe	CGAAATTAATACGCCIICTTGGGCAIGTAC -C18ddC	1737
Human IL-2 Invader	CTGAAGATGTTTCAGTTCCTGTG- ddC	1738
Human IL-2 Invader	GAAGATGTTTCAGTTCCTGTG	1739
Human IL-2 Probe	TCAC TTCCTACCCIICTTGGGCAIGTAA	1740
Human IL-2 Probe	TCAC TTCCTACCCIICTTGGGCAIGTAAAC	1741
Human IL-2 Probe	TCAC TTCCTACCCIICTTGGGCAIGTAA- C18ddC	1742
Human IL-2 Invader	GAAGATGTTTCAGTTCCTGTG- ddC	1743
Human IL-2 Probe	FI- ACTTCCTACIIAATCCATTCAAAAATC	1744
Human IL-2 Probe	ACTTCCTACIIAATCCATTCAAAAATC - C18ddC	1745
Human IL-2 Invader	GAGTTGGGATTCCTGTAAATTAT-ddC	1746
Human IL-2 Probe	FI- CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1747
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1748
Human IL-2 Invader	GAGTTGGGATTCCTGTAAATTAT - ddC	1749
Human IL-2 Probe	FI- CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1750
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1751
Human IL-2 Probe	FI- CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1752
Human IL-2 Probe	CGTGTCTGTGGCGTATCTTAATCCATTCAAAAATC	1753
Human IL-2 Invader	GAGTTGGGATTCCTGTAAATTAT-ddC	1754
HUMAN β-ACTIN		
Human β-actin Probe	FI-TTCCTACICTTIGATCTTCATTTGTGC	1755
Human β-actin Invader	CTCAGGAGGAGCAATGATCTT	1756
Human β-actin Invader	CTCAGGAGGAGCAATGAT	1757
Human β-actin Probe	FI-TCACTTCCTACTCTGGGTCATCTTCTCG -C18ddC	1758
Human β-actin Probe	TCAC TTCCTACTCTGGGTCATCTTCTCG -C18ddC	1759
Human β-actin Invader	GTGTTGAAGGTCCTCAAAACATGAT- ddC	1760
Human β-actin Invader	GGGTGTTGAAGGTCCTCAAAACATGAT - ddC	1761
Human β-actin Probe	FI- CGTGTCTGTGGCGTATCTGGGTCATCTTCTCG	1762
Human β-actin Probe	CGTGTCTGTGGCGTATCTGGGTCATCTTCTCG	1763
Human β-actin Invader	GGGTGTTGAAGGTCCTCAAAACATGAT - ddC	1764
GAPDH		
Human GAPDH Probe	FI- TTCATACGGTTGGTAGTTGAGGTCAATG	1765
Human GAPDH Probe	TTCATACGGTTGGTAGTTGAGGTCAATG	1766
Human GAPDH Invader	GGAATCATATTGGAACATGTAAACCATC	1767
Human GAPDH Probe	FI- TTCATACGGTTGGCTCCCTGGGAAGATG	1768

Human GAPDH Probe	TTCATACGGTTGGCICCTGGGAAGATG	1769
Human GAPDH Invader	CACTTGATTTTGGAGGGATCTCA	1770
Human/Mouse/Rat GAPDH Probe	TTCATACGGTTGGTAGTGGAGGTCATG	1771
Mouse/Rat GAPDH Invader	AGAATCATACTGGAACATGTAGACCATC	1772
Mouse GAPDH Probe	FI-TGGCGTATCATGTAGTIGG	1773
Mouse GAPDH Probe	TGGCGTATCATGTAGTIGG	1774
Mouse GAPDH Probe	GGAGTCATACTGGAACATGTAGACC	1775
Mouse GAPDH Invader	TGGCGTATCATGTAGTIGG	1776
Mouse GAPDH Probe	AGTCATACTGGAACATGTAGACA	1777
Mouse GAPDH Invader	GGAGTCATACTGGAACATGTAGACA	1778
MOUSE IL-6		
Mouse IL-6 Probe	FI- TGGCGTATCICITTTTCTCATI	1779
Mouse IL-6 Probe	TGGCGTATCICITTTTCTCATI	1780
Mouse IL-6 Invader	ACAATCAGAAATTGCCATTGCACAACA	1781
MOUSE ONCOSTATIN M		
Mouse Oncostatin M Probe	FI-GAAGGCAGAGGACCGTGAGGC	1782
Mouse Oncostatin M Probe	GAAGGCAGAGGACCGTGAGGC	1783
Mouse Oncostatin M Invader	AAGACATCTGGTGTGTAGTGA	1784
Mouse Oncostatin M Probe	FI-TGGCGTATCICCCAGAGAAAAGC	1785
Mouse Oncostatin M Probe	TGGCGTATCICCCAGAGAAAAGC	1786
Mouse Oncostatin M Invader	CACGTAGCCGATGAAGCGATGGTAA	1787
Mouse Oncostatin M Probe	FI- TGGCGTATCAGGGCTCCAAAG	1788
Mouse Oncostatin M Probe	TGGCGTATCAGGGCTCCAAAG	1789
Mouse Oncostatin M Invader	GTGTTACAGTTTGGAGCGCGGATAA	1790
Mouse Oncostatin M Probe	FI-TGGCGTATCAGGGCTCCAAAG	1791
Mouse Oncostatin M Probe	TGGCGTATCAGGGCTCCAAAG	1792
Mouse Oncostatin M Invader	GTGTTACAGTTTGGAGCGCGGATAA	1793
FRET Probe	FI-ATTTC(CY3)TCTCAGA-3'NH2	1794
FRET Probe	FI-ATTTC(CY3)TCTCAGAC-3'NH2	1795
FRET Probe	FI-ATTTC(CY3)TCTCAGACT-3'NH2	1796
SRT	CAGTCTGAGATGAATGATACGCCAGG-3'NH2	1797
Mouse Oncostatin M Arrestor	<u>CITGGAGCCCTAGATA-NH2</u>	1798
Mouse Oncostatin M Arrestor	<u>CITGGAGCCCTAGAT-NH2</u>	1799
Mouse Oncostatin M Arrestor	<u>CITGGAGCCCTAGA-NH2</u>	1800
Mouse Oncostatin M Probe	CTGGCGTATCTAGGGCTCCCA	1801
Mouse Oncostatin M Probe	CCTGGCGTATCTAGGGCTCCCA	1802
Mouse Oncostatin M Invader	GTGTTACAGTTTGGAGCGCGGATAA	1803
SRT	CAGTCTGAGATGAATGATACGCCAGG-3'NH2	1804
Arrestor	<u>CITGGAGCCCTAGAT-NH2</u>	1805
Mouse Oncostatin M Probe	FI-CTCTCTCTGCTCTIAGGGCTCCA	1806

Mouse Oncostatin M Probe	CTCTCTCGTCTCTAGGGCTCCCA	1807
Mouse Oncostatin M Invader	GTGTTTCAGGTTTGGAGCGGATAA	1808
SRT	CAGTCTGAGATGAATGAGACGAGAGAGT-NH2	1809
Mouse Oncostatin M Arrestor	CTTGGAGCCCTAGAG-NH2	1810
Mouse Oncostatin M Probe	FI- TGGCGTATCTAGGGCTCCCA	1811
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCCA	1812
Mouse Oncostatin M Invader	GTGTTTCAGGTTTGGAGCGGATAA	1813
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCCA	1814
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCCA	1815
Mouse Oncostatin M Invader	CACTGAGCCGATGAAGCGATGGTAA	1816
Mouse Oncostatin M Probe	TGGCGTATCTAGGGCTCCCA	1817
Mouse Oncostatin M Invader	GTGTTTCAGGTTTGGAGCGGATAA	1818
Mouse Oncostatin M Probe	CTCTCTCGTCTCTAGGGCTCCCA	1819
Mouse Oncostatin M Invader	GCCAGCTCTCAGGTCAGGTGTGA	1820
Mouse Oncostatin M Invader	AGGCAGCTCTCAGGTCAGGTGTGA	1821
SRT	CAGTCTGAGATGAATGAGACGAGAGAGT-NH2	1822
FRET Probe	FI-ATTTC(CY3)TCTCAGAC-3'NH2	1823
Mouse Oncostatin M Arrestor	CAAAACCTGAAGAGA-3'NH2	1824
Mouse Oncostatin M Arrestor	CAAAACCTGAAGAGA-3'NH2	1825
Mouse Oncostatin M Arrestor	CAAAACCTGAAGAGA-3'NH2	1826
Mouse Oncostatin M Probe	FI- CTCTCTCGTCTCTCAGGTTTG	1827
Mouse Oncostatin M Probe	CTCTCTCGTCTCTCAGGTTTG-NH2	1828
Mouse Oncostatin M Invader	GCCAGCTCTCAGGTCAGGTGTGA	1829
Mouse Oncostatin M Stack	GAGCGGATATAGGGCT- Biotin TEG	1830
HUMAN ONCOSTATIN M		
Human Oncostatin M Probe	CTCTCTCGTCTCTCAGGACTTAA	1831
Human Oncostatin M Probe	CTCTCTCGTCTCTCAGGACTTAA	1832
Human Oncostatin M Invader	GAAACAGGAGTGCAAGGACGAGACA	1833
Human Oncostatin M Probe	TCACGTCTCTCAGGTTTG	1834
Human Oncostatin M Probe	GTCACGTCTCTCAGGTTTG	1835
Human Oncostatin M Probe	AGTCACGTCTCTCAGGTTTG	1836
Human Oncostatin M Probe	CAGTCACGTCTCTCAGGTTTG	1837
Human Oncostatin M Invader	AGGCAGCTCTCAGGTCAGGTGTGA	1838
FRET Probe 1	FI- CAAC(CY3)GCTTCCTCCG	1839
SRT	CGGAGGAAGCAGTTGGAGACGTGACTGTGG-NH2	1840
SRT with mismatch	CGGAAGAAGCAGTTGGAGACGTGACTGTGG-NH2	1841
SRT with mismatch	CGGACGAAGCAGTTGGAGACGTGACTGTGG-NH2	1842

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bold indicates 2' o-methyl bases

Oligo Type	Oligo Sequence	Oligo #	SEQ ID NO
SECONDARY SYSTEM:			
SET 1			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1843
secondary target	5'-CGGAAGAAGCAGTTGGTGCGCCTCGTTAA-NH2	649-10-01	1844
SET 2			
FRET probe 1	5'-F-CAAC(CY3)GCTTCCTCCG-3'	DB04001F6	1845
secondary target	5'-CGGAAGAAGCAGTTGGAGGCGTGACGGT-NH2-3'	641-60-03	1846
h2C19 designs 2			
probe	5'-AACGAGGCGCACGATGTCCATCGA-NH2-3'	971-26-09	1847
stacker	5'-TTCTTGGTGTTCTTTACTTTCTC-3'	971-26-12	1848
invader	5'-GCAATCAATAAGTCCCGAGGGTTGTTG	971-26-11	1849
arrestor	5'-TCGATGGACATCGTGCGC-3'	971-26-10	1850
SET 1			
h 2D6 p450 designs			
probe	5'-CCGTCACGCCCTCTCACCCATCT-NH2-3'	971-11-01	1851
stacker	5'-CTGGTCGCCGCACCT-3'	971-11-04	1852
invader	5'-TGTAGGGCATGTGAGCCTGGA-3'	971-11-03	1853
arrestor	5'-AGATGGGAGAGAGGCG-3'	971-11-02	1854
SET 2			
probe	5'-CCGTCACGCCCTCGAAGCCCTGT-NH2-3'	971-11-05	1855
stacker	5'-ACTTCGATGTCACGGGATGTCATATGG-3'	971-11-08	1856
invader	5'-GAGTGTCTGTTCCCTTAGGGATGCGC-3'	971-11-08	1857
arrestor	5'-ACAGGGCTTCGAGGCG-3'	971-11-06	1858
SET 2			
probe	5'-CCGTCACGCCCTCCCTGCTGAGAAAG-NH2-3'	971-11-09	1859
stacker	5'-GCAGGAAGGCCCTCCG-3'	971-11-12	1860
invader	5'-CCCGAGGCATGCACGGCGGA-3'	971-11-11	1861
arrestor	5'-CTTTCTCAGCAGGGAGGCG-3'	971-11-10	1862
SET 2			

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h 2D6 shroter designs

probe 1051-12-06 1863
 probe 1051-12-05 1864
 probe 971-38-01 1865
 invader 971-11-11 1866
 stacker 971-38-03 1867
 arrestor 971-38-02 1868
 SET 2

5'-CCGTCACGCCCTCCCTGCTGAGAA-NH2-3' 1869
 invader 971-11-11 1870
 stacker 971-38-09 1871
 arrestor 971-38-08 1872
 SET 2

5'-CCGTCACGCCCTCCCTGCTGAGAA-NH2-3' 1873
 invader 971-11-11 1874
 stacker 971-38-06 1875
 arrestor 971-38-05 1876
 SET 2

5'-CCGTCACGCCCTCCCTGCTGAGAA-NH2-3' 1877
 invader 971-11-11 1878
 stacker 971-11-12 1879
 arrestor 971-11-10 1880
 SET 2

h 2B6 p450 alt. Splice designs

probe 1051-48-01 1881
 invader 971-01-03 1882
 stacker 971-01-04 1883
 arrestor 1051-48-02 1884
 SET 1

5'-AACGAGGCGCACCATATCCC-NH2-3' 1885
 invader 971-01-03 1886
 stacker 971-01-04 1887
 arrestor 1051-48-02 1888
 SET 1

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SET 2

probe
invader
stacker
arrestor
SET 1

5'-AACGAGGGCACCAGAGCTGATGAG-NH2-3'
5'-GAGAAAGAGCTCAAACAGCTGGCCGAATAA-3'
5'-TGAAAAAGTCTGGTAGAACAAAGTTCAGC-3'
5'-CTCATCAGCTCTGGTGCGC-3'

probe

5'-CCGTCACGCCCTCCAGAGCTGATGAG-NH2-3'

5'-CTCATCAGCTCTGGAGGCG-3'

SET 2

h2B6 p450 alt.splice designs2

5'-AACGAGGGCACCCTTGGATTTTC-NH2-3'
5'-CTGTTCAATCTCCCTGTAGACTCTCTA-3'
5'-CGAAGCTCCTCTATCAG-3'
5'-GAAATCCAAGGGTGCGC-3'

SET 1

5'-CCGTCACGCCCTCCCTTGGATTTTC-NH2-3'

5'-GAAATCCAAGGGAGGCG-3'

SET 2

5'-AACGAGGGCGCACTGAGGGCC-NH2-3'
5'-GGAAGAGGAAGGTGGGTCCAA-3'
5'-CCCTTGGATTTCCGAAG-3'
5'-GGCCCTCAGTGCGC-3'

SET 1

5'-CCGTCACGCCCTCTGAGGGCC-NH2-3'

5'-GGCCCTCAGAGGCG-3'

SET 2

h2B6 p450 alt. Splice designs4

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probe	5'-AACGAGGGCACAATACAGAGCTG-NH2-3'	1051-48-17	1904
invader	5'-GAGAAAGAGCTCAACAGCTGGCCGC-3'	1051-48-22	1905
stacker	5'-ATGAGTGAAGTCTGGTAGAAC-3'	1051-48-21	1906
arrestor	5'-CAGCTCTGTATTGTGCGC-3'	1051-48-18	1907
SET 1			
probe	5'-CCGTCACGCCTCAATACAGAGCTG-NH2-3'	1051-48-19	1908
invader		1051-48-22	
stacker		1051-48-21	
arrestor	5'-CAGCTCTGTATTGAGGCG-3'	1051-48-20	1909
SET 2			
probe	5'-AACGAGGGCAGCGTTGAGGTTCTG-NH2-3'	1051-48-23	1910
invader	5'-CAGCAAAGAGCGGAGAGCGTGTGAC-3'	1051-48-28	1911
stacker	5'-GTGGCTGAATTCACGTGTG-3'	1051-48-27	1912
arrestor	5'-CAGAACCTCAACCGTGCGC-3'	1051-48-24	1913
SET 1			
probe	5'-CCGTCACGCCTCGGTTGAGGTTCTG-NH2-3'	1051-48-25	1914
invader		1051-48-28	
stacker		1051-48-27	
arrestor	5'-CAGAACCTCAACCGAGGCG-3'	1051-48-26	1915
SET 2			
h2B6 p450 designs			
probe	5'-CCGTCACGCCTCCACCATATCCCCG-NH2-3'	971-01-06	1916
invader	5'-CCGTCACGCCTCCACCATATCCC-NH2-3'	971-01-03	1917
stacker	5'-CGGAAGAATGGGTCGAC-3'	971-01-05	1918
stacker	5'-CGGAAGAATGGGTCGACCATG-3'	971-01-04	1919
arrestor	5'-GGGATATGGTGGAGGCG-3'	971-01-02	1920
SET 2			
probe	5'-CCAGCGGTTTCCATTGGCAAAGATCAA-3'	971-01-01	1921
invader		971-01-03	
arrestor	5'-CGGGGATATGGTGGAGGCG-3'	971-01-07	1922
SET 2			
probe	5'-CCGTCACGCCTCCAGAGCTGATGAG-NH2-3'	971-01-08	1923
invader	5'-GAGAAAGAGCTCAACAGCTGGCCGAATAA-3'	971-01-10	1924
stacker	5'-TGAAAAAGTCTGGTAGAACAAAGTTCAGC-3'	971-01-11	1925

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arrestor SET 2	5'-CTCATCAGCTCTGGAGGCG-3'	971-01-09	1926
h2b6p450 designs 2			
probe	5'-CCGTCACGCCTCAGATGACTGCC-NH2-3'	971-01-12	1927
invader	5'-GGAGAAGGTCGGAATCTCTGAATCTCATC-3'	971-01-13	1928
stacker	5'-TCTGTGATGGCATTGCTCGG-3'	971-01-14	1929
arrestor	5'-GGCAGTCATCTGAGGCG-3'	971-01-15	1930
SET 2			
h 2C19 designs 1			
probe	5'-CCGTCACGCCTCCATCCTTAATATCTAT-NH2-3'	971-26-01	1931
invader	5'-GAGAGATTGGTTAAGGATTGCTGAA-3'	971-26-03	1932
stacker	5'-CTGTAGGATAATTCGAATCACTGGG-3'	971-26-04	1933
arrestor	5'-ATAGATATTAAGGATGGAGGCG-3'	971-26-02	1934
SET 2			
probe	5'-AACGAGGCGCACCGTTCAGGC-NH2-3'	971-26-05	1935
invader	5'-CATATCCATGCAGCACCCACCATGA-3'	971-26-07	1936
stacker	5'-CAAAATACAGAGTGAACACAGGGCC-3'	971-26-08	1937
arrestor	5'-GCCTGGAACGGTGCGC-3'	971-26-06	1938
SET 1			
h2C19 shorter site 2 designs			
probe	5'-AACGAGGCGCACCGTTCAGGC-NH2-3'	971-68-01	1939
invader	5'-CATATCCATGCAGCACCCACCATGA-3'	971-26-07	1940
stacker	5'-CCAAAATACAGAGTGAACACAGGGCC-3'	971-68-03	1941
arrestor	5'-CCTGGAACGGTGCGC-3'	971-68-02	1942
SET 1			
probe	5'-AACGAGGCGCACCGTTCAGGC-NH2-3'	971-26-05	1943
probe	5'-AACGAGGCGCACCGTTCAGGC-3'	1051-12-03	1944
probe	5'-AACGAGGCGCACCGTTCAGGC-HEX-3'	1051-12-04	1945
invader	5'-CAAAAATACAGAGTGAACACAGGGCC-3'	971-26-07	1946
stacker	5'-GCCTGGAACGGTGCGC-3'	971-68-04	1947
arrestor		971-26-05	
SET 1			
rat 1A1, rat 1A2 probe	Rat 1A1 site 1 bs. 639-700 5'-CCGTCACGCCTCAGATTGACTATGCTG-NH2-3'	500-58-01	1948

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invader stacker arrestor SET 2	5'-CAGTAACCTCCCAAACTCATTGCTTC-3' 5'-AGCAGCTCTTGGTCAICGT-3' 5'-CAGCATAGTCAATCTGAGGCG-3'	500-58-03 500-58-04 500-58-02	1949 1950 1951
rat 1A2 probe invader stacker arrestor SET 1	Rat 1A2 site 1 bs. 674-725 5'-AACGAGGCGCACTGACATTCTCCAC-NH2-3' 5'-GTCCACAGCATTCCTGAGGA-3' 5'-AAAGTCTTGCTGCTCTTC-3' 5'-GTGGAGAATGTCAGTGCGC-3'	500-58-05 500-58-07 500-58-08 500-53-06	1952 1953 1954 1955
rat 2B1-2B2 patent probe invader stacker arrestor SET 1	5'-AACGAGGCGCACTGGCTTGACACA-NH2-3' 5'-GTCAATGTCTTGGAGCCAAA-3' 5'-GAGAAATTCTGGAGGATGGTGG-3' 5'-TGTTGTCAGCCAGTGCGC-3'	500-49-05 500-49-03 r2B1, 2B2 500-49-07 500-49-06	1956 1957 1958 1959
probe invader stacker arrestor SET 1	5'-AACGAGGCGCACTGGCTTGACACAG-NH2-3' 5'-AGAAAGTTCTGGAGGATGGTGG-3' 5'-CTGTGTCAAGCCAGTGCGC-3'	500-49-01 500-49-03 r2B1, 2B2 500-49-04 500-49-02	1960 1961 1962
rat 2B1-2B2 site 4 probe invader stacker arrestor SET 2	PROBE SET 2 (r2B1 bs 1299-1353, r2B2 bs. 474-528) 5'-AACGAGGCGCACGAGGAACAAATTCATT-NH2-3' 5'-GTTCTGGAGGATGGTGTGAAGAAC-3' 5'-CGGGCAATGCCCTTCG-3' 5'-AAATGAATTGTTCTCCTCGTGCGC-3'	500-49-12 500-49-10 500-49-14 500-49-13	1963 1964 1965 1966
probe invader stacker arrestor SET 1	5'-AACGAGGCGCACGAGGAACAAATTCATT-NH2-3' 5'-GGGCAATGCCCTTCG-3' 5'-GAAATGAATTGTTCTCCTCGTGCGC-3'	500-49-08 500-49-10 500-49-11 500-49-09	1967 1968 1969
rat 2B1-2B2 ,5 patent probe	5'-AACGAGGCGCACAGCTGAGAAAGCAG-NH2-3'	500-49-15	1970

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invader	5'-GCCTCAGCCGGATCACCGC-3'	r2B1, 500-49-17	1971
invader	5'-GCCCTCAGCCCGATCACCGC-3'	r2B2, 500-49-18	1972
stacker	5'-ATCTGGTACGTTGGAGGTATT-3'	r2B1 500-49-20	1973
stacker	5'-ATCTGGTATGTTGGAGGTATT-3'	r2B2 500-49-21	1974
arrestor	5'-CTGCTTCTCAGCTCTGCCG-3'	500-49-16	1975
NOTE: all 3 invader/probe sets are designed to detect both 2B1 and 2B2			
SET 1			
rat 2E1 p450 (af061442) 500-73	Rat 2E1 PROBE SET (570C)		
p	5'-CCGTCACGCCCTCGTCGAAACGTTTGTGTT-NH2	500-40-04	1976
l	5'-CCCTCAGACACTTCCTGTGTCATTGTAC-3'	500-40-02	1977
s	5'-GAAGAGGATATCCGCAATGACATTGC-3'	500-40-05	1978
a	5'-AACAAACGTTTCGACGAGGCG-3'	500-40-06	1979
SET 2			
p	5'-CCGTCACGCCCTCGTCGAAACGTTTGTGTTGAAG-NH2-3'	500-40-01	1980
l		500-40-02	
s		500-40-05	
a	5'-CTTCAACAACGTTTCGACGAGGCG-3'	500-40-03	1981
SET 2			
rat 2E1 p450 (af061442) 500-73	Rat 2E1 PROBE SET (822G) (designed over splice junction #5)		
p	5'-CCGTCACGCCCTCCTCCATCTCTATG-NH2-3'	500-40-10	1982
l	5'-GTTCTTGCGTGTGTTTTCCCTTA-3'	500-40-08	1983
s	5'-AGGAGACAGTCAGTCACATC-3'	500-40-11	1984
a	5'-CATAGAGATGGAGGAGGCG-3'	500-40-12	1985
SET 2			
p	5'-CCGTCACGCCCTCCTCCATCTCTATGAG-NH2-3'	500-40-07	1986
l		500-40-08	
s		500-40-11	
a	5'-CTCATAGAGATGGAGGAGGCG-3'	500-40-09	1987
SET 2			
rat 2E1 PROBE SET (969G)	Designed over splice junction #6		
probe	5'-CCGTCACGCCCTCCTCTTCAATTTCTG-HEX-3'	1073-19-06	1988
invader	5'-CCCTGTCAATTTCTTCATGAAGTTTA-3'	500-40-14	1989
stacker	5'-GGTATTTTCATGAGGATCAGGAGC-3'	500-40-17	1990
arrestor	5'-CCAGAAATTGAAGAGGAGGCG-3'	500-40-15	1991
SET 2			

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probe	5'-CCGTCACGCCTCCTCTTCAATTTCTG-3'	1073-19-05	1992
probe	5'-CCGTCACGCCTCCTCTTCAATTTCTG-NH2-3'	500-40-16	1993
probe	5'-CCGTCACGCCTCCTCTTCAATTTCTGG-NH2	500-40-13	1994
invader		500-40-14	
stacker		500-40-17	
arrestor		500-40-18	1995
SET 2	5'-CAGAAATTGAAGAGGAGGCG-3'		
Rat 2E1 PROBE SET (969G)	Designed over splice junction #6		
probe	5'-CCGTCACGCCTCCTCTTCAATTTCT-NH2-3'	500-73-01	1996
invader	5'-CCCTGTCAATTTCTTCATGAAGTTTA-3'	500-40-14	1997
stacker	5'-GGGTATTTTCATGAGGATCAGGAG-3'	500-73-03	1998
arrestor	5'-AGAAATTGAAGAGGAGGCG-3'	500-73-02	1999
SET 2			
rat 3A's design 2			
probe	5'-CCGTCACGCCTCGTTCCTGGGT-NH2-3'	500-43-15	2000
invader	5'-GAGCAAACTCATGCCAATGCAC-3'	r3A1, 3A18 500-43-23	2001
invader	5'-GAGCAAACTCATGTCAATGCAC-3'	r3A2 500-43-24	2002
invader	5'-GAGCAAACTCATGCCAATACAC-3'	r3A2 500-43-24	2003
stacker	5'-CCATTTCCTCAAGGCGAG-3'	short r3A1, 3A2, 3A18 500-43-19	2004
stacker	5'-CCATTTCCTCAAGGCGAG-3'	short r3A9 500-43-20	2005
arrestor	5'-ACCCAGGAACGAGGCG-3'	500-43-16	2006
SET 2			
probe	5'-CCGTCACGCCTCGTTCCTGGGT-NH2-3'	500-43-13	2007
invader		r3A1, 3A18 500-43-23	
invader		r3A2 500-43-24	
arrestor		500-43-14	2008
SET 2	5'-GACCCAGGAACGAGGCG-3'		
rat 3A's desing 3			
probe	5'-CCGTCACGCCTCTGAGAGCAAACT-NH2-3'	500-43-29	2009
invader	5'-AGAGCGAGTTTCATATTCAA-3'	r3A1, 3A2 500-43-35	2010
invader	5'-AGAGCAACTTTTCATGTTCAA-3'	r3A9 500-43-36	2011
invader	5'-ACAGCAAGTTTCATGCTGAA-3'	r3A18 500-43-37	2012
stacker	5'-CATGCCAATGCAGTTCCTG-3'	r3A1, 3A18 500-43-31	2013
stacker	5'-CATGTCAATGCAGTTCCTG-3'	r3A2 500-43-32	2014
stacker	5'-CATGCCAATACAGTTCCTG-3'	r3A9 500-43-33	2015

arrestor SET 2	5'-AGGTTTGCTCTCCGAGGCG-3'	500-43-30	2016
probe	5'-CCGTCACGCCCTCTGAGAGCAAACCTCA-NH2-3'	500-43-27	2017
invader		r3A1, 3A2	500-43-35
invader		r3A9	500-43-36
invader		r3A18	500-43-37
arrestor SET 2	5'-TGAGGTTTGCTCTCAGAGGCG-3'	500-43-28	2018
rat 3A's designs			
probe	5'-CCGTCACGCCCTCGGAACATCTCCT-NH2-3'	500-43-03	2019
invader	5'-TGCTCCATACTGTTCAATGATGGC-3'	r3A1, 3A2	500-43-09
invader	5'-TATCTGTATACTGGTTAATGATGGC-3'	r3A9	500-43-10
invader	5'-TATCTCCATACTGTCTCATGAGGGC-3'	r3A18	500-43-11
s	5'-TGAGTCTTCCACTGGTG-3'	r3A1, 3A2	500-43-05
s	5'-TGAGCTTCCCACTGGTG-3'	r3A9	500-43-06
a	5'-TGAGTTTGCCCACTGGTG-3'	r3A18	500-43-07
SET 2			
probe	5'-CCGTCACGCCCTCGGAACATCTCCTTGA-NH2-3'	500-43-01	2026
invader		r3A1, 3A2	500-43-09
invader		r3A9	500-43-10
invader		r3A18	500-43-11
arrestor SET 2	5'-TCAAGGAGATGTTCCGAGGCG-3'	500-43-02	2027
rat 3A's design 2b			
probe	5'-CCGTCACGCCCTCGTTCTGGG-NH2-3'	991-39-01	2028
invader	5'-GAGCAAAACCTCATGCCAATGCAC-3'	r3A1, 3A18	500-43-23
invader	5'-GAGCAAAACCTCATGTCAATGCAC-3'	r3A2	500-43-24
invader	5'-GAGCAAAACCTCATGCCAATACAC-3'	r3A9	500-43-25
stacker	5'-TCCATTTCCAAAAGGCGAG-3'	r3A1, 3A2, 3A18	991-39-03
stacker	5'-TCCATTTCCAAAAGGCGAG-3'	r3A9	991-39-04
arrestor SET 2	5'-CCCAGGAACGAGGCG-3'	991-39-02	2034
rat or human 1A1 shorter site 2			
probe	5'-CCGTCACGCCCTCCTGTCTGTGAT-HEX-3'	1073-19-02	2035
probe	5'-CCGTCACGCCCTCCTGTCTGTGAT-3'	1073-19-01	2036

probe	5'-CCGTCACGCCTCCTGTCTGTGAT-NH2-3'	991-12-04	2037
invader	5'-TCCTGACAAATGCTCAATGAGGA-3'	r 1A1 500-53-11	2038
invader	5'-TCCTGACAGTGCTCAATCAGGA-3'	h 1A1 500-53-12	2039
stacker	5'-GTCCCGGATGTGGCC-3'	rat/human 1A1 991-12-06	2040
arrestor	5'-ACATCACAGACAGGAGGCG-3'	500-53-10	2041
SET 2			
probe	5'-CCGTCACGCCTCCTGTCTGTGATG-NH2-3'	991-12-01	2042
invader		r 1A1 500-53-11	
invader		h 1A1 500-53-12	
stacker	5'-TCCCGGATGTGGCCCT-3'	rat/human 1A1 991-12-03	2043
arrestor	5'-CATCACAGACAGGAGGCG-3'	991-12-02	2044
SET 2			
probe	5'-CCGTCACGCCTCCTGTCTGTGATGT-NH2-3'	500-53-09	2045
invader		r 1A1 500-53-11	
invader		h 1A1 500-53-12	
stacker	5'-GTCCCGGATGTGGCC-3'	rat/human 1A1 991-12-06	2046
arrestor	5'-ATCACAGACAGGAGGCG-3'	991-12-05	2047
SET 2			
rat or human 1A1 site 1			
probe	5'-CCGTCACGCCTCTGGCCCTTC-NH2-3'	500-53-04	2048
invader	5'-CTGTCTGTGATGTCCCGGATGA-3'	500-53-03	2049
stacker	5'-TCAAATGCTGTAGTGCTC-3'	rat 1A1 500-53-06	2050
stacker	5'-TCAAAGGTTTTGTAGTGCTC-3'	human 1A1 500-53-07	2051
arrestor	5'-GAAGGCCACAGAGGCG-3'	500-53-05	2052
SET 2			
probe	5'-CCGTCACGCCTCTGGCCCTTCTC-NH2-3'	500-53-01	2053
invader		500-53-03	
arrestor	5'-GAGAAAGGCCACAGAGGCG-3'	500-53-02	2054
SET 2			
Rat/Human 1A1 site 2			
probe	5'-CCGTCACGCCTCCTGTCTGTGATGT-NH2-3'	500-53-09	2055
invader	5'-TCCTGACAAATGCTCAATGAGGA-3'	r 1A1 500-53-11	2056
invader	5'-TCCTGACAGTGCTCAATCAGGA-3'	h 1A1 500-53-12	2057
stacker	5'-CCCGGATGTGGCCCT-3'	rat/human 1A1 500-53-14	2058
arrestor	5'-ACATCACAGACAGGAGGCG-3'	500-53-10	2059

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SET 2					
rat or human 1A2 sites					
probe	5'-AACGAGGCGCACGGACTGTTTTCTGC-HEX-3'	1073-19-04	2060		
probe	5'-AACGAGGCGCACGGACTGTTTTCTGC-3'	1073-19-03	2061		
probe	5'-AACGAGGCGCACGGACTGTTTTCTGC-NH2-3'	500-53-15	2062		
invader	5'-CTTGTGAAGTCTTGATAGTGTTCCTC-3'	rat 1A2 500-53-17	2063		
invader	5'-CTTGTCAAAGTCCTGATAGTGTCTCCTC-3'	human 1A2 500-53-18	2064		
arrestor	5'-GCAGAAACACAGTCCGTGCGC-3'	500-53-16	2065		
SET 1					
shorter h2C19 design site 3					
probe	5'-AACGAGGCGCACGATGTCCATCG-NH2-3'	971-48-01	2066		
invader	5'-GCAATCAATAAAGTCCCAGGGTTGTTC-3'	971-26-11	2067		
stacker	5'-ATTCTTGGTGTCTTTTACTTTCTC-3'	971-48-03	2068		
arrestor	5'-CGATGGACATCGTGCGC-3'	971-48-02	2069		
SET 1					

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Human IL-10

Oligo Type	Sequence
probe	aacgagcgccacaaactcactcgtgct-NH2
arrestor	agccatgagtggttggtg
probe	aacgagcgccacaaactcactcgtgct-NH2
arrestor	gccatgagtggttggtg
arrestor	gccatgagtggttggtg
arrestor	gccatgagtggttggtg
arrestor	gccatgagtggttggtg
probe	aacgagcgccacaaactcactcgtg-NH2
stacker	cttggatcagcctctcttgagc
arrestor	ccatgagtggttggtg
probe	aacgagcgccacaaactcactcgtg-NH2
stacker	gcttgatcagcctctcttgag
arrestor	catgagtggttggtg
probe	aacgagcgccacaaactcactcgtg-NH2
stacker	ggcttgatcagcctctcttgag
stacker	ggcttgatcagcctctcttgag
arrestor	atgagtggttggtg
probe	ccgacgcccacaaactcactcgtg-NH2
arrestor	atgagtggttggtg
invader	taggctctatgtagtgagagtgta
invader	gtcatgtaggctctatgtagtgagagtgta

Mouse IL-4

Oligo Type	Sequence
probe	aacgagcgccactctctctggaactcg
arrestor	cgagtcacagagagtg
probe	aacgagcgccactctctctggaact-NH2
arrestor	aggtcacagagagtg
probe	cagtcacgctctctctggaact-NH2
arrestor	aggtcacagagagagag
arrestor	aggtcacagagagagac
probe	aacgagcgccactctctctggaact
arrestor	aggtcacagagagagac
probe	ccagtcacgctctctctggaact
arrestor	aggtcacagagagagtg
probe	aacgagcgccactctctctggaact
probe	aacgagcgccactctctctggaact
arrestor	aggtcacagagagtg
probe	aacgagcgccactctctctgga-NH2
stacker	ctctggtcaaatgcgatgatcttc
arrestor	tcacagagagtg
Invader	atccatctcgtgcatgagcgtcccta
Invader	atccatctcgtgcatgagcgtcccta
probe	aacgagcgccacccctctctctgga-NH2
arrestor	gtcacagagagagggg
probe	aacgagcgccacccctctctctg-NH2
arrestor	acagagagagggg
invader	ggcaccatccatctcgtgcatgagcgtga
probe	ccgtaacgctctctctctggaact-NH2

SEQ ID NO	Comments
2070	3' amine
2071	All 2'-Ome + 3' amine arrestor for 511-31-01
2072	3' amine
2073	All 2'-Ome + 3' amine arrestor for 511-30-01
2074	All 2-Ome Same as 380-82-02
2075	All 2-Ome Same as 380-82-04
2076	All 2-Ome Same as 380-82-06
2077	All 2-Ome Same as 380-82-08
2078	3' amine
2079	stacker for 511-67-01 All 2'Ome
2080	all 2'Ome arrestor for 511-67-01
2081	3' amine
2082	stacker for 781-80-01 All 2'Ome
2083	all 2'Ome arrestor for 781-80-01
2084	3' amine
2085	stacker for 781-81-01 All 2'Ome
2086	stacker for 781-81-01 All 2'Ome to replace 781-81-02
2087	all 2'Ome arrestor for 781-81-01
2088	same as 938-46-01 w/ 3' amine
2089	all 2'Ome arrestor for 938-46-01&02
2090	longer invader 380-59-02
2091	

Comments	SEQ ID NO
All 2'-Ome + 3' amine arrestor for 511-14-01	2092
458-34-01 with 3' amine	2093
All 2'-Ome + 3' amine arrestor for 458-34-01	2094
3' amine	2095
All 2'-Ome + 3' amine arrestor for 511-16-01	2096
All 2'-Ome + 3' amine arrestor for 511-16-01	2097
All 2'-Ome + 3' amine arrestor for 458-35-01	2098
All 2'-Ome + 3' amine arrestor for 458-35-01	2099
All 2'-Ome + 3' amine arrestor for 458-36-01	2100
All 2'-Ome + 3' amine arrestor for 458-36-01	2101
3' amine	2102
All 2'-Ome for 781-71-01	2103
All 2'-Ome arrestor for 781-71-01	2104
Same as 380-32-01 but underlined base is mismatch to sequence	2105
3' amine	2106
All 2'-Ome + 3' amine arrestor for 511-44-01	2107
3' amine	2108
All 2'-Ome + 3' amine arrestor for 511-68-01	2109
3' amine	2110
3' amine	2111
All 2'-Ome + 3' amine arrestor for 511-44-01	2112
3' amine	2113
All 2'-Ome + 3' amine arrestor for 511-68-01	2114
3' amine	2115
3' amine	2116

arrestor	acgaggtcacaggaggaggc	511-46-02	MO4-1/MO4-2/MO4-3	All 2'-Ome + 3' amine arrestor for 511-46-01	2117
probe	ccgtcacgctctctctgtgacctc-NH2	511-69-01		3' amine	2118
arrestor	gaggtcacaggaggaggc	511-69-02		All 2'-Ome + 3' amine arrestor for 511-69-01	2119
probe	ccgtcacgctctctctgtgacctc-NH2	781-68-01	MO4-1/MO4-2/MO4-3	3' amine	2120
stacker	tcggttcaaaatgcgaigtatctctca	781-68-02		All 2'Ome stacker for 781-68-01	2121
arrestor	gggtcacaggaggaggcg	781-68-03		All 2'-Ome arrestor for 781-68-01	2122
probe	ccgtcacgctctctctgtgacctc-NH2	781-69-01	MO4-1/MO4-2/MO4-3	3' amine	2123
stacker	ctcgggtcaaaalgcgaigtatctctca	781-69-02		All 2'Ome stacker for 781-69-01	2124
arrestor	gtcacaggaggaggcg	781-69-03		All 2'-Ome arrestor for 781-69-01	2125
invader	acatccatctccgtgcagtggcgctccta	511-47-01			2126
probe	cagtcacgtctctccctctctct-NH2	511-17-01	MO2	3' amine	2127
arrestor	aggagaaggaggaggagcg	511-17-02		All 2'-Ome + 3' amine arrestor for 511-17-01	2128
invader	gcacatcatctctccgtgcagtggcgga	511-18-01			2129
probe	ccgccgagatcactctctgtgaacc-NH2	781-83-01	TT-1/TT-2	3' amine	2130
arrestor	gggtcacaggaggatgc	781-83-02		All 2' Ome arrestor for 781-83-01	2131
probe	ccgtcacgctctctctgtgacctc-NH2	781-82-01	MO4-1/MO4-2/MO4-3	3' amine	2132
invader	ccgtgcagtggcgctcccttca	781-82-02			2133
arrestor	gggtcacaggaggaggcg	781-82-03		All 2' Ome arrestor for 781-82-01	2134
probe	ccgtcacgctctccctgtgaacc-NH2	781-84-01	MO4-1/MO4-2/MO4-3	3' amine	2135
invader	cggtcagtgctccctctctca	781-84-02			2136
arrestor	gggtcacaggaggaggcg	781-84-03		All 2' Ome arrestor for 781-84-01	2137

Mouse IL-2

Oligo Type	Sequence
probe	cagtcacgtctctgtttacacacgttactct-NH2
arrestor	agagtaactgttgaataactaaagagacg
invader	gcactcaaatgttgttcagagccca

Mouse IFN- γ

Oligo Type	Sequence
probe	cagtcacgtctctctctttgtccagttcc-NH2
arrestor	ggaaactggcaaaaggagagacg
probe	cagtcacgtctctctctttgtccagttc-NH2
arrestor	gaactggcaaaaggagagacg
probe	cagtcacgtctctctctttgtccagtt-NH2
arrestor	aactggcaaaaggagagacg
invader	gctctgcaggatttcaigtaccacaa

Human TNF- α

Oligo Type	Sequence
probe	ccgccggagatcactctgacigcctg-NH2
arrestor	caggcagtcagagatcctgg
probe	ccgccggagatcactctgacigcct-NH2
arrestor	aggcagtcagagatcctgg
invader	ctt gtc act cgg ggt tgc aga aga tga a

Human IL-1 β

Oligo Type	Sequence
probe	gccgtcacgctctctctgtttaggggcc-NH2

Comments
3' amine
All 2'-Ome + 3' amine arrestor for 511-19-01

Comments
3' amine
All 2'-Ome + 3' amine arrestor for 511-24-01
3' amine
All 2'-Ome + 3' amine arrestor for 511-23-01
3' amine
All 2'-Ome + 3' amine arrestor for 511-20-01

Comments
3' amine (based on 685-27-01-1 base shorter)
All 2'-Ome + 3' amine arrestor for 511-77-01
3' amine (based on 685-27-01-2 bases shorter)
All 2'-Ome + 3' amine arrestor for 511-78-01

Comments
3' amine (based on 685-21-01)

arrestor	ggccctaaacagatgagagggt	511-80-01	All 2'-Ome + 3' amine arrestor for 511-79-01	2154
arrestor	ggccctaaacagatgagagggtga	511-80-02	All 2'-Ome + 3' amine arrestor for 511-79-01	2155
invader	caggctccggagaggcacta	685-23-01		2156

Human IL-6

Oligo Type	Sequence	Oligo Number	Secondary Cassette	Comments	
probe	gcgctcacgcctctctctcattgaatct-NH2	511-81-01	MO4-1/MO4-2/MO4-3	3' amine (based on 685-16-01)	2157
arrestor	aggattcaatgagagagagcggtga	511-82-01		All 2'-Ome + 3' amine arrestor for 511-81-01	2158
arrestor	aggattcaatgagagagagcggt	511-82-02		All 2'-Ome + 3' amine arrestor for 511-81-01	2159
probe	cgcgcgcctctctctcattgaatct-NH2	781-27-01	MO4-1/MO4-2/MO4-3	3' amine (511-81-01 with new arm)	2160
arrestor	aggattcaatgagagagagcggt	781-27-02		All 2'-Ome + 3' amine arrestor for 781-27-01	2161
probe	gcccgtcacgcctctctcattgaatcc-NH2	511-83-01	MO4-1/MO4-2/MO4-3	3' amine (based on 685-16-01)	2162
arrestor	ggattcaatgagagagagcggtga	511-84-01		All 2'-Ome + 3' amine arrestor for 511-81-01	2163
arrestor	ggattcaatgagagagagcggt	511-84-02		All 2'-Ome + 3' amine arrestor for 511-81-01	2164
probe	cgcgcgcctctctctcattgaatcc-NH2	781-28-01	MO4-1/MO4-2/MO4-3	3' amine (511-83-01 with new arm)	2165
arrestor	ggattcaatgagagagagcggt	781-28-02		All 2'-Ome + 3' amine arrestor for 781-28-01	2166
probe	cgcgcgcctctctctcattgaatcc-NH2	781-29-01	MO4-1/MO4-2/MO4-3	3' amine (1 base shorter than 781-28-01)	2167
arrestor	gattcaatgagagagagcggt	781-29-02		All 2'-Ome + 3' amine arrestor for 781-29-01	2168
probe	cgcgcgcctctctctcattgaatcc-NH2	781-30-01	TT-1/TT-2	3' amine (781-29-01 with new arm)	2169
arrestor	gattcaatgagagagagcggt	781-30-02		All 2'-Ome + 3' amine arrestor for 781-30-01	2170
invader	cca aaa gtc cag tga ttt tca cca ggc aag a	685-18-01			2171

Secondary Cassettes

SRT	cggaggaagcagttggtgcgcctctgtaaaNH2	277-68-05	FV-1		2172
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2173
SRT	ccaggaagcaagtggtgcgcctctgttt	996-29-01	FV-2		2174
FRET probe	Fcac(Z21)tgctctcgtg	767-29-02			2175
SRT	cggaaagaagcagttgagagcggtgacggtNH2	641-60-03	MO4-1		2176
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2177
SRT	cggaaagaagcagttgagagcggtgacggtNH2	562-93-01	MO4-2		2178
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2179
SRT	ccaggaagcaagtgagagcggtgacggtgu	996-29-02	MO4-3		2180
FRET probe	Fcac(Z21)tgctctcgtg	767-29-02			2181
SRT	cggaggaagcagttggtgattcgcgcggtNH2	562-92-01	TT-1		2182
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2183
SRT	cggaaagaagcagttggtgattcgcgcggtNH2	685-56-01	TT-2		2184
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2185
SRT	gctactgagatgaagagagagcggtgactgtatNH2	491-68-02	MO2		2186
FRET probe	Fcttc(Cy3)tcctcagtagc	491-68-01			2187
SRT	cgg agg aag cgg ttg cgt acg act ggt taa-NH2	458-35-03	MISC-1		2188
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2189
SRT	cgg agg aag cgg ttg gtt cgg gtt gtt gg-PO3	441-31-02	MISC-2		2190
FRET probe	Fcaac(Cy3)gctctctcgc	187-46-01			2191

Oligo sequence descriptions: 5' to 3' direction, 2'-Ome nts are bolded and underlined, internal modifications defined in ()

FRET Oligo/SRT Combinations

Set	FRET Oligo	SRT	SEQ ID NO
Set 1	187-46-01	641-60-02	2192
Set 2	187-46-01	690-82-03	2193
Set 3	307-70-02	339-50-03	2194
Set 4	303-18-05	343-63-07	2195
Set 5	303-18-05	343-25-01	2196
Set 6	187-46-01	649-10-01	2197
Set 7	744-80-03	277-068-05N	2198
Set 8	187-46-01	833-18-07	2199
Set 9	767-28-03	777-71-10	
Set 10	767-29-02	996-29-01	
Set 11	1067-20-01	996-29-01	
Set 12	307-70-02	307-70-04	
Set 13	491-01-01	491-02-04	
Set 14	187-46-01	562-84-01	

Oligo #	Oligo Sequence	SEQ ID NO
187-46-01	Fam-CAAC(CY3)GCTTCCTCCG	2200
307-70-02	Fam-ATTTC(CY3)TCTCAGAC-NH2	2201
303-18-05	Fam-TAAC(CY3)GCTTCCTCCG	2202
744-80-03	Fam-CAA(Dabcy)TGCCTTCCTCCG	2203
767-28-03	Red Dye-CTC(Z-21)TCTCAGTGCG	2204
767-29-02	Fam-CAC(Z-21)TGCCTTCGTGG	2205
1067-20-01	Fam-CAC(Z-28)TGCCTTCGTGG	2206
491-01-01	Fam-CTTC(CY3)TCTCAGAC	2207

Oligo #	Oligo Sequence	SEQ ID NO
641-60-02	CGGAGGAAGCAGTTGGAGGCGTGACGGT-NH2	2208
690-82-03	CGGAGGAAGCAGTTGGGCGGTGACGGTT	2209
339-50-03	CAGTCTGAGATGAATGAGACGAGAGAGT-NH2	2210
343-63-07	CGGAGGAAGCGGTTAGTCTGCCACGTCAT-NH2	2211
343-25-01	CGGAGGAAGCGGTTAGTCTGCCACGTCAT-NH2	2212
649-10-01	CGGAGGAAGCAGTTGGTGGCGCTCGTAA-NH2	
277-068-05N	CGGAGGAAGCAGTTGGTGGCGCTCGTAA-NH2	
833-18-07	CGGAGGAAGCAGTTGGTGGCGCTCGTAA-NH2	
777-71-10	GCAGTGAATGAGGAGCGGTGACGGT-NH2	
996-29-01	CCAGGAAGCAAGTGGTGGCGCTCGTAA	
307-70-04	CAGTCTGAGATGAATGATACGCGAGG-NH2	
491-02-04	AGTCTGAGATGAAGGAGACGTGACTGG-NH2	
562-84-01	CGGAGGAAGCGGTTGGTGTGATCTCGGCG-NH2	

Oligo Type	Oligo #	Oligo Sequence	Notes	Position	SEQ ID NO
Human IL-2	196-56-01	TCTGTGGCGTATCCTTCTTGGGCATGTAA		Splice Junction 2	2213
Probe	196-56-02	GTGGCGTATCCTTCTTGGGCATGTAA			2214
Probe	196-56-03	CGGTATCCTTCTTGGGCATGTAA			2215
Probe	128-93-02	GAAGATGTTTCAGTTCTGTGG(ddC)	ddC = dideoxy C		2216
Invader	145-030-05	AAAGATACGCCACAGAACACG(BIOTIN-dA)TT			2217
Capture Oligo	315-28-01	TGGCGTATCTTAATCCATTCAAAT		Splice Junction 1	2218
Probe	315-28-02	TGGGAGTTGGGATCTTTGTAATTAA			2219
Invader					

Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2220
Probe	315-29-01	TGGCGTATCTAATTATTCCATTC	2221
Invader	315-29-02	ATCTGGTGAGTTGGGATCTTGA	2222
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2223
Probe	315-29-03	TGGCGTATCTTCCATTCAAATCATC	2224
Invader	315-29-04	GTTGGGATCTTGTAAATTATAA	2225
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2226
Probe	315-30-01	GTGGCGTATCTTCTTGGGCAT	2227
Invader	315-30-02	GAAGATGTTTCAGTCTGTGGC	2228
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2229
Human b-actin			
Probe	315-26-01	TGGCGTATCTGGGTCATCTTC	2230
Invader	315-26-02	GGGTGTTGAAGGTCCTCAACATGAA	2231
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2232
Probe	315-27-01	TGGCGTATCTTGTATCTTCATTGT	2233
Invader	315-27-02	ACTTGCCTCAGGAGGAGCAATGAA	2234
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2235
Probe	315-91-01	TGGCGTATCTGATCTGGTCACT	2236
Invader	315-91-02	TGGCTGGGTTGAAAGTCTCAACAA	2237
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2238
Probe	315-92-01	ACCCGTATCTGCCAGGAAGGA	2239
Invader	315-92-02	AGTTCTGGATGCCACAGGAGACCAA	2240
Invader	315-92-03	AGTTCTGGATGCTACAGGAGACCAA	2241
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2242
Probe	340-32-01	TGGCGTATCTCTCAAAACATGATCT	2243
Invader	340-32-02	ACGTACATGGCTGGGTTGAAGGA	2244
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2245
Probe	340-33-01	TGGCGTATCTGATCTGGTCACT	2246
Invader	340-33-02	TGGCTGGGTTGTTGAAGTCTCAACAA	2247
Capture Oligo	195-023-01	AAAAGATACGCCACAGC(BIOTIN-dT)C	2248
Probe	740-01-01	CCGTACGCTCGCTGGGTTG	2249
Invader	740-01-02	TCTGGTCACTCTCTCGCGTTGA	2250
Arrestor	740-01-03	GAAGCCCAAGGCGAGGCGI	2251
Secondary Cassette		Set 1	
Probe	740-01-08	CCGTACCGCCATGGGTCATCTTCT	2252
Stacker	740-01-04	CGCGGTTGGCCTTGGGTT	2253
Invader	740-01-06	CTGGGGTGTGAAGGTCTCAACATGATCC	2254
Arrestor	740-01-09	AGAAAGATGACCCATGCGG	2255
Secondary Cassette		Set 2	
Mouse GAPDH			
Probe	425-59-01	FI-CTCTCTCGTCTCTCTCTGGAAGA	2256
Invader	425-59-02	ATTGTAGTGTAGTGGGTCCTCGCA	2257
Probe	425-60-01	FI-CTCTCTCGTCTCTCTCTGACAATC	2258
Invader	425-60-02	GCAGTTGGTGGTGCAGGATGCATA	2259
Probe	425-61-01	FI-CTCTCTCGTCTCTCTACAGGAAATG	2260
Invader	425-61-02	GCTGTAGCCCGTATTCAATTGTCAA	2261
Probe	425-80-01	FI-CTCTCTCGTCTCTCTCTCTGGAAG	2262
Invader	425-80-02	CATTGTAGTGTAGTGGGTCCTCGA	2263
Probe	425-87-01	CTCTCTCGTCTCTCTCTGGAAGA	2264
Invader	425-59-02	ATTGTAGTGTAGTGGGTCCTCGCA	2265
Arrestor	425-87-04	ICTTCCAGGAGAGACG	2266
Secondary Cassette		Set 3	
Probe	425-87-02	CTCTCTCGTCTCTCTCTCTGGAAG	2267
Invader	425-80-02	CATTGTAGTGTAGTGGGTCCTCGA	2268
		FI = Fluorescien	
		FI = Fluorescien	
		FI = Fluorescien	
		Same as 425-59-01 without Fluorescien	
		Same as 425-80-01 without Fluorescien	

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Arrestor	425-87-05	CTTCCAGGAGGAGACG			2269
Secondary Cassette		Set 3			
Probe	425-87-03	CTCTCTCGTCTCTACCAAGAAATG		Splice Junction 8	2270
Invader	425-61-02	GCTGTAGCCGTATTTCATTGTCAA			2271
Arrestor	425-87-06	CATTTCCTGGTAGAGACG	Same as 425-61-01 without Fluorescein		2272
Secondary Cassette		Set 3			
Probe	453-23-01	ATGACGTGACAGACCTCTGGAAGAT		Splice Junction 4	2273
Probe	453-23-03	ATGACGTGACAGACCTCTGGAAGATG			2274
Invader	425-80-02	CATTTCATGTTAGTGGGTCTCGA			2275
Arrestor	453-23-04	CACTTCCAGGAGGCTCTGI-NH2			2276
Secondary Cassette		Set 4			
Probe	453-23-02	ATGACGTGGCAGACCTCTGGAAGAT		Splice Junction 4	2277
Invader	425-80-02	CATTTCATGTTAGTGGGTCTCGA			2278
Arrestor	453-23-05	ACTTCCAGGAGGCTCTGC-NH2			2279
Secondary Cassette		Set 5			
Probe	435-67-04	CAGTCACGTCTCTTCAGGTTTTG			2280
Invader	395-05-07	AGGCAGCTCTCAGGTCAGGTGTGA			2281
FRET Probe - Secondary Reaction	524-51-01	FI-CTTC(Cy3)TCTCAGTAGCG			2282
Secondary Reaction Template	524-51-03	CGCTACTGAGATGAAGGAGACGCTGACTGTA-NH2			2283
Secondary Reaction Template	524-51-04	CGCTAACTGAGATGAAGGAGACGCTGACTGTA-NH2			2284
Probe	435-67-04	CAGTCACGTCTCTTCAGGTTTTG			2285
Invader	395-05-07	AGGCAGCTCTCAGGTCAGGTGTGA			2286
FRET Probe - Secondary Reaction	524-51-02	FI-CTTC(Cy3)TCTCAGTAGCGA			2287
Secondary Reaction Template	524-51-05	TCGCTACTGAGATGAAGGAGACGCTGACTGTA-NH2			2288
Secondary Reaction Template	524-51-06	TCGCTAACTGAGATGAAGGAGACGCTGACTGTA-NH2			2289
Human Ubiquitin					
Probe	796-72-01	AACGAGGCGCACCTTTACATTTTCTATCGTATCC			2290
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA			2291
Arrestor	796-72-02	GGATACGATAGAAAATGTAAAGGTCGCG			2292
Secondary Cassette		Set 6			
Probe	796-72-03	AACGAGGCGCACCTTTACATTTTCTATCGTATC			2293
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA			2294
Arrestor	796-72-04	GATACGATAGAAAATGTAAAGGTCGCG			2295
Secondary Cassette		Set 6			
Probe	820-35-01	AACGAGGCGCACCTTTACATTTTCTATCGT			2296
Probe	820-35-02	AACGAGGCGCACCTTTACATTTTCTATCGT			2297
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA			2298
Arrestor	820-35-03	ACGATAGAAAATGTAAAGGTCGCG			2299
Secondary Cassette		Set 7			
Probe	820-88-01	AACGAGGCGCACCTTTACATTTTCTATCGT-NH2			2300
Probe	820-88-02	AACGAGGCGCACCTTTACATTTTCTATCGT	Same as 820-35-02 with 3' Amine		2301
Probe	820-88-03	AACGAGGCGCACCTTTACATTTTCTATCGT	Same as 820-35-02 with O-Me U for Blocking		2302
Probe	820-88-04	AACGAGGCGCACCTTTACATTTTCTATCGT	Same as 820-35-02 with O- Me G for Blocking		2303
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA	Same as 820-35-02 with T for Blocking. The T is a mismatch against the RNA sequence.		2304
Arrestor	820-35-03	ACGATAGAAAATGTAAAGGTCGCG			2305
Secondary Cassette		Set 7			
Probe	847-65-01	GCCGCACGCCGCTTTACATTTTCTATCGT			2306
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA			2307
Arrestor	847-65-02	ACGATAGAAAATGTAAAGGTCGCG			2308
Arrestor	847-65-03	ACGATAGAAAATGTAAAGGTCGCG			2309
Secondary Cassette		Set 8			
Probe	936-61-01	AACGAGGCGCACCTTTACATTTTCTATCGTATCCG			2310
Invader	428-81-02	CTTCTCTTATCCTGGATCTTGGCA	Same as 428-87-01 without Biotin blocking group		2311

Arrestor Secondary Cassette	936-61-02	CGGATACGATAGAAAATGTAAAGGTGCGC Set 7	Same as 428-87-03 without Biotin blocking group	2312
Monocyte Chemotactic Protein 1 (MCP-1)				
Probe	820-89-01	CCGTACGCGCTCCTTCGGAGTTTGGG	Same as 720-92-01 without the amine	2313
Invader	685-76-01	GGTTGTGGAGTGAGTTCAAGTA		2314
Arrestor	820-89-02	CCCAAACTCCGAAGGAGGCGC Set 9		2315
Secondary Cassette				
MAGE-3				
Probe	1001-01-01	FI-TTTTCTGGAAGCTTTGCT	Same analyte specific Region as 871-18-02.	2316
Invader	871-18-03	CGATGCCAAAGACCAGCTGCAAGGAAG		2317
Stacker	871-18-01	GAAGATCACAGGAAGAAATAC		2318
Stacker	1138-50-01	GCAGCTCTTGGGA		2319
Probe	1138-50-02	AACGAGGCGCACGTTGGTGA		2320
Stacker	1138-50-03	GCAGCTCTTGGGACI		2321
Probe	1138-50-04	AACGAGGCGCACGTTGGTGAG		2322
Invader	1138-50-05	CTCAGGAGTAGTTTCTCTGCACGAAATC		2323
Arrestor	1138-50-06	CTCACCCCAACGTGCGC Set 10		2324
Secondary Cassette				
Stacker	1138-51-01	AGCTCTTGGGAIC		2325
Probe	1138-51-02	AACGAGGCGCACCTTGGTGAGC		2326
Stacker	1138-51-03	GCCTCTTGGGAIC		2327
Probe	1138-51-04	AACGAGGCGCACCTTGGTGAGCA		2328
Invader	1138-51-05	CAGGTAGTTTCTCTGCACGAAATGA		2329
Arrestor	1138-51-06	TGCTCACCCAAAGTGGC Set 11		2330
Secondary Cassette				
Stacker	1138-67-01	TGCAGGATCAGTGGC		2331
Probe	1138-67-02	AACGAGGCGCACACCAATTCATAACA		2332
Invader	1138-67-03	GGCCCTTGGACCCCA		2333
Arrestor	1138-67-04	TGTAATGAATGGTGGTGGC Set 11		2334
Secondary Cassette				
Stacker	1138-67-05	CATGCAGGATCAGTGGC		2335
Probe	1138-67-06	AACGAGGCGCACACCAATTCATAACA		2336
Invader	1138-67-07	AGGCCCTTGGACCCCA		2337
Arrestor	1138-67-08	TTATGAATGGTGGTGGC Set 11		2338
Secondary Cassette				
Human Oncostatin M				
Probe	339-30-02	CTGGCGTATCTAGGGCTCCA		2339
Invader	264-42-03	GTGTTCAGGTTTGGAGCGGATAA		2340
Arrestor	374-32-01	CTTGGAGCCCTAGATAC-NH2		2341
Arrestor	374-32-02	CTTGGAGCCCTAGATAC-NH2		2342
Arrestor	374-32-03	CTTGGAGCCCTAGATAC-NH2		2343
Secondary Cassette				
Probe	524-39-01	CAGTCACGCTCTTCAGGTTTG-NH2	Same as 435-67-04 with 3' Amine	2344
Invader	395-05-07	AGGCAGCTCTCAGGTCAGGTGTA		2345
Stacker	435-40-02	GAGCGGATATAGGGCTCCA		2346
Arrestor	369-47-07	CAAAACCTGAAGAGACG-NH2 Set 13		2347
Secondary Cassette				
Probe	1088-74-01	AACGAGGCGCACCTCTCTGTGTG		2348
Arrestor	1088-74-02	CACACAGAGGGTGGC		2349
Probe	1088-74-03	AACGAGGCGCACCTCTCTGTGTG-NH2		2350
Probe	1088-74-04	AACGAGGCGCACCTCTCTGTGTG-HEX	HEX = Hexanediol	2351
Invader	603-75-03	GCAAGGACCCAGACTGAGCAGCGTA		2352

Stacker	752-01-05	AGCAGTACCCCCATG	2353
Arrestor	641-62-04	CACACAGAGGGAGGCG-NH2	2354
Secondary Cassette		Set 10	
Probe	1138-49-02	AACGAGGCGCACCTTCTGGAG-NH2	2355
Stacker	1138-49-01	CTGGCCAAAGGAG	2356
Invader	1138-49-03	GTCTGCATGAGATCTGTCTGA	2357
Arrestor	1138-49-04	CTCCAGAAGGTGCGC	2358
Secondary Cassette		Set 11	
Probe	1138-49-06	AACGAGGCGCACTCTGCTTCT-NH2	2359
Stacker	1138-49-05	GGAGCTGGCCAA	2360
Invader	1138-49-07	TGGTGCTCTGCATGAGATCTGA	2361
Arrestor	1138-49-08	ICCAGAAAGCAGAGTGCGC	2362
Secondary Cassette		Set 11	
Probe	1138-49-10	AACGAGGCGCACCATGAGATCT-NH2	2363
Stacker	1138-49-09	GTCTGCTTCTGGA	2364
Invader	1138-49-11	GAGTCTGCTGGTGTCCCTGA	2365
Arrestor	1138-49-12	AGAICTCAITGGTGCGC	2366
Secondary Cassette		Set 11	
Probe	1163-01-01	TGGCCAAAGGAGCA	2367
Stacker	1163-01-02	AACGAGGCGCACTTCTGGAGC-NH2	2368
Invader	1163-01-03	TCCTGCATGAGATCTGTCTGCA	2369
Arrestor	1163-01-04	GCTCCAGAAGTGCGC	2370
Secondary Cassette		Set 11	
Probe	1163-01-05	GGCCAAAGGAGCAC	2371
Stacker	1163-01-06	AACGAGGCGCACTCTGGAGCT-NH2	2372
Invader	1163-01-07	CCTGCATGAGATCTGTCTGCTA	2373
Arrestor	1163-01-08	AGCTCCAGAGTGCGC	2374
Secondary Cassette		Set 11	
Probe	1163-01-09	GCCAAGGAGGACG	2375
Stacker	1163-01-10	AACGAGGCGCACCTGGAGCTC-NH2	2376
Invader	1163-01-11	CCTGCATGAGATCTGTCTGCTTA	2377
Arrestor	1163-01-12	GAGCTCCAGGTGCGC	2378
Secondary Cassette		Set 11	
84h6r			
Probe	688-51-01	CGCCGAGATCAGCCCAACGACGGTCT	2379
Invader	688-51-02	AGCCCTTGAGTTTAATAACTTCATAGGCACCTA	2380
Arrestor	688-51-03	AGACCCGTCGTGGCGTGATC	2381
Secondary Cassette		Set 14	
Probe	688-51-04	CGCCGAGATCACCTCAACACCATAAAGCCCA	2382
Invader	688-51-05	CGGAGAGACTGAGGAATACGTACCCACCA	2383
Arrestor	688-51-06	TGGCTTTTAIGGTGTGGAGTGATC	2384
Secondary Cassette		Set 14	
MSH2			
Probe	690-32-02	CCGTACGCGCTCCGAACTGCCCTAG	2385
Invader	690-32-04	GTATATATAGTCCGACGATCAAGAGGC	2386
Stacker	709-52-01	GGTCCTTGGYAGGG	2387
Arrestor	690-32-05	GCGGAGGCTTGACGGGATC	2388
Secondary Cassette		Set 1	

SEQ ID NO

bold indicates 2' O methyl base

ELISA Format Kits

Leukocyte-associated molecule-1 alpha subunit, human (h-LFA1)

G4731 Probe Set

p

5'-CTCTCTCGTCTCCAGGGCGTCTCGTCGG-PO4-3'

2389

i

5'-CTGTACACACGTCGGTGCTGA-3'

2390

c

5'-AAAAAGGAGACGAGAGAGTG-3'

2391

for the remainder of the oligo sets on this list, the fret/target secondary sets are one of the following 11:

FRET/TARGET SETS

FRET TARGET

set 1	307-70-03	502-93-01
set 2	307-70-03	502-93-02
set 3	187-46-01	641-60-02
set 4	187-46-01	277-68-05
set 5	187-46-01	685-56-01
set 6	187-46-01	641-60-03
set 7	187-46-01	649-10-01
set 8	680-17-02	782-70-02
set 9	187-46-01	277-68-06
set 10	187-46-01	491-02-02
set 11	307-70-03	761-40-02

FRETS

307-70-03
187-46-01
680-17-02

5'-Fam-ATTC(CY3)TCTCAGACT-NH2-3'
5'-Fam-CAAC (CY3)GCTTCCTCCG-3'
5'-Fam-CGCT (CY3)TCTCGCTCGC-3'

2392
2393
2394

TARGETS

502-93-01
502-93-02
641-60-02
277-68-05
685-56-01
641-60-03
649-10-01
782-70-02
277-68-06
491-02-02

5'-CAGTCTGAGATGAATGATACGAGAGAGT-NH2-3'
5'-CAGTCTGAGATGAATGAGACGAGAGAGT-NH2-3'
5'-CGGAGGAAGCAGTTGGAGGCCGTGACGGT-NH2-3'
5'-CGGAGGAAGCAGTTGGTGGCCTCGTTAA-PO4-3'
5'-GCCGAAAGCAGTTGGTATCTCGCGG-NH2-3'
5'-CGGAAAGCAGTTGGAGGCCGTGACGGT-NH2-3'
5'-CGGAAAGCAGTTGGTGGCCTCGTTAA-NH2-3'
5'-GCCGAGAGACAGCGCAACCTGCCGTTTC-3'
5'-CGGAGGAAGCAGTTGTCGCGCAAGATG-3'
5'-CGGAAAGCAGTTGGAGACGCTGCTGG-NH2-3'

2395
2396
2397
2398
2399
2400
2401
2402
2403
2404

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2405

Cell Lysate Kits

adipocyte lipid binding protein, mouse (m-aP2)

C289 Probe Set

I

p

a

a

a

p

p

a

a

p

a

a

p

p

a

a

G392 Probe Set

p

I

rev-ErbA, mouse (m-revErbA)

C155 Probe Set

p

I

Carnitine palmitoyltransferase, mouse (m-CPT-1)

T352 Probe Set

p

I

C851 Probe Set

p

I

Carnitine palmitoyltransferase, human (h-CPT-1)

135/145

5'-GGAGTGAGACAGCGAAAGACTGCCGTTCT-3'

FRET/TARGET SET 1

5'-CCGCCATCTAGGGTTATGATGCTA-3'

5'-CTCTCTCGTCTCCTTACCTTCCCTGTCG-NH2-3'

3'-PO4-AGCAGAGGAAGTGAAGGACAGC-5'

3'-NH2-AGCAGAGGAAGTGAAGGACAGC-5'

3'-PO4-AGAGCAGAGGAAGTGAAGGACAGC-5'

5'-AACGAGGCGCACCTTACCTTCCCTGTCG-NH2-3';

5'-AACGAGGCGCACCTTACCTTCCCTGTCG-Biotin-3'

3'-PO4-CCGCGTGAAGTGAAGGACAGC-5'

3'-PO4-CTCCGCGTGAAGTGAAGGACAGC-5'

5'-CATCTTCGCGGACTTACCTTCCCTGTCG-NH2

3'-PO4-GCCTGAAGTGAAGGACAGC-5'

3'-PO4-GCGCCTGAAGTGAAGGACAGC-5'

5'-CTTGCTCCCCGTGCTTACCTTCCCTGTCG-NH2

5'-CTTGCTCCCCGTGCTTACCTTCCCTGTCG-Biotin

3'-PO4-GGGCACGAAGTGAAGGACAGC-5'

3'-PO4-AGGGGCACGAAGTGAAGGACAGC-5'

FRET/TARGET SET 1

5'-CTCTCTCGTCTCCACATTCCACCACAG-NH2-3'

5'-TTGTGTAAGTCACGCCTTTCATAAT-3'

FRET/TARGET SET 4

5'-AACGAGGCGCACGAAGCAGGTAATGAATCT-NH2-3'

5'-CCACTCCTGAAGGCTCCGCAGTC-3'

FRET/TARGET SET 2

5'-CTCTCTCGTCTCAATGCCTGTCGCC-NH2-3'

5'-GCTTCAGGGTTTGTGCGGAAGAAGAAC-3'

FRET/TARGET SET 2

5'-CTCTCTCGTCTCGTTTGGCGGATACAT-NH2-3'

5'-CGGCTTGATCTCTTACCGTCCAC-3'

Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	0.5	0.5	0	1
Marital status	0.6	0.5	0	1
Education	12.5	1.5	9	16
Income	15.2	5.8	5	35
Health status	0.8	0.4	0	1
Smoking status	0.3	0.5	0	1
Alcohol consumption	0.2	0.4	0	1
Exercise frequency	0.5	0.5	0	1
Stress level	3.2	1.8	1	5
Sleep quality	0.7	0.5	0	1
Work satisfaction	0.6	0.5	0	1
Life satisfaction	0.7	0.5	0	1
Depression score	1.5	1.2	0	4
Anxiety score	1.8	1.5	0	5
Overall well-being	0.6	0.5	0	1

U744 Probe set	FRET/TARGET SET 2	2430
p	5'-CTCTCTCGTCTCAACTTCAAATACCACTGTAATCT-NH2-3'	2431
i	5'-CTCACGTAATTTGTAGCCACCCAGGAGTTTC-3'	2432
a	3'-NH2-GCAGAGTTGAAGTTTATGGTGACATTAGA-5'	2433
s	5'-TGGTCCAGACCCGACAGCAAAATCTTGAG-3'	
A456 Probe Set	FRET/TARGET SET 10	2434
p	5'-CAGTCACGTCCTCTCAGGGAGTAGCGCA-NH2-3'	2435
i	5'-CCCCGTGGTAGGAGAGCAGCACTA-3'	2436
a	3'-NH2-GCAGAGAAGTCCCTCATCGCGT-5'	
C759 Probe Set	FRET/TARGET SET 2	2437
p	5'-CTCTCTCGTCTCGCCCCACCAGGATT-NH2	2438
i	5'-CTCCCAACCAGTCGCTCACGTAATTTGTAA-3'	2439
a	5'-AATCCTGGTGGCGGAGACG-B-3'	2440
s	5'-TTAACTTCAAATACCACTGTAATCTTGGTCCAAGACCG-3'	
G329 Probe Set	FRET/TARGET SET 4	2441
p	5'-ACCGAGGCGCACCAATTATTCCTAACG-b-3'	2442
i	5'-GCCGTTTCCAGAGTCCGATTGATTTTGA-3'	2443
a	3'-(biotin)-GCGGTGGTTAATAAGGATTGC-5'	
C1763 Probe Set	FRET/TARGET SET 9	2444
p	5'-CATCTTCGCGGAGACATTTCTTGATGATTCCTT-3'	2445
i	5'-AAAGGTGTCTGGGCTCGTGCT-3'	2446
a	3'-(biotin)-GCCTCTGTAAAGAACTACTAAGGAA-5'	
Phosphatidylinositol-3-phosphate p110 __, human (h-PI3Kp110_)		
G1045 Probe Set (FV Arm)	FRET/TARGET SET 4	2447
p	5'-AACGAGGCGCACCAAGTTTCTCTGTG-NH2-3'	2448
i	5'-GACCCAGCCCTGACATGAACCTTTTAC-3'	2449
a	3'-NH2-CGCGTGGTCAAAGGAGACAC-5'	
C1521 Probe Set	FRET/TARGET SET 2	2450
p	5'-CTCTCTCGTCTCGGGAGGGTAATAAAGG-NH2-3'	2451
i	5'-GCTGCCCTTTTCAATAATCTTATCGAAC-3'	2452
a	3'-NH2-AGCAGAGCCCTCCCATTTATTTC-5'	
C2667 Probe Set	FRET/TARGET SET 2	2453
p	5'-CTCTCTCGTCTCGTTGTATTCTTTAAGCCAG-NH2-3'	2454
i	5'-CGGTCCAGGTATCCCCAGAC-3'	

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a	3'NH2-AGCAGAGCAACATAAGAAATTCGGTC-5'	2455
G537 Probe Set		
p	FRET/TARGET SET 2	
i	5'-CTCTCTCGTCTCCTCTCTGGTGATATGTTTG-NH2-3'	2456
a	5'-CTAAGTTTTCAGGGATGGATGGTTTCATGC-3'	2457
	3'NH2-AGCAGAGGAGACCACTATACAAAC-5'	2458
T3192 Probe Set		
p	FRET/TARGET SET 2	
i	5'-CTCTCTCGTCTCAACTGTGTGGG-NH2-3'	2459
a	5'-TTAAGATCTGTAGTCTTTCCGAAC-3'	2460
	3'NH2-AGCAGAGTTACACACACCCCG-5'	2461
Cartilage-derived morphogenic protein 1, human (h-CDMP1)		
A831 Probe Set		
p	FRET/TARGET SET 6	
i	5'-CCGTACAGCCTCCTGTTGCCCTCCC-(biotin)-3'	2462
a	5'-AGCCTCCAACCTTCAGGCTGT-3'	2463
	5'-GGGAGGCAACAGGAGGCG-(biotin)-3'	2464
A1691 Probe Set		
p	FRET/TARGET SET 5	
i	5'-CCGCCGAGATCACTGAAGAGGATGCTGATGG-(biotin)-3'	2465
a	5'-ACACCACGTTGTTGGCAGAGTCAAG-3'	2466
	5'-CCATCAGCATCCTCTTCAGTGATCTCGG-(biotin)-3'	2467
b-actin, rat (r-bACT)		
C1671 Probe Set (longer)		
p	FRET/TARGET SET 6	
i	5'-CCGTACAGCCTCGCCTTAGGGTTCA-NH2-3'	2468
a	5'-TCTGGGTCATCTTTTCACGGTTGA-3'	2469
s	3'-GCGGAGCGGAATCCCAAGT-5'	2470
	5'-GAGGGGCTCGGTGAGC-3'	2471
Bile Salt port Pump, rat (r-BSEP)		
p	FRET/TARGET SET 5	
p	5'-CCGCCGAGATCACGAGTTCTTGCCCTTTC-(biotin)-3'	2472
i	5'-CCGCCGAGATCACGAGTTCTTGCCCTTTC-NH3-3'	2473
a	5'-TTCACACACGCTTTTCTGCTGATCTCC-3'	2474
	3'-(biotin)-CTAGTGCTCAAGAACGGAAAG-5'	2475
G1288 Probe Set		
p	FRET/TARGET SET 2	
i	5'-CTCTCTCGTCTCCAGAAAGGCCAGT-(biotin)-3'	2476
a	5'-TTCCTCATCTAGGACAAAGTGGAACCAATAA-3'	2477
	5'-ACTGGCCCTTCTGGGAGACG-(biotin)-3'	2478

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A790 Probe Set
 p
 i
 a
 FRET/TARGET SET 6
 5'-CCGTCACGCCCTCTTTCTCATTCTCCT-(biotin)-3' 2479
 5'-CCCAATTTCCATTCTCATTTATTTCTCCGGAAGTAAATC-3' 2480
 5'-AGGAGAAATGAGGAAAGAGGCG-(biotin)-3' 2481

Nitric Oxide Synthase 2A, human (h-iNOS2)
 A3418 Probe Set
 p
 i
 a
 FRET/TARGET SET 6
 5'-CCGTCACGCCCTCTGTCTTTCTTCGCG-(biotin)-3' 2482
 5'-GCTGCACCGCCACCCC-3' 2483
 5'-GCCAAGAAAGACAGAGGCG-(biotin)-3' 2484

Neutral Carboxy Ester Hydrolase, human (h-NCEH)
 A1221 Probe Set
 p
 p
 i
 s
 FRET/TARGET SET 7
 5'-AACGAGGGCGCACTCTTCTTATTCTCTG-B-3' 2485
 5'-AACGAGGGCGCACTCTTCTTATTCTCTG-NH2-3' 2486
 5'-GTCTCAAAGTCCACCCACAGTCTC-3' 2487
 5'-CAGGAGAAATAGAAAGAGTGGCG-(biotin)-3' 2488

A1221 Probe Set
 p
 p
 i
 a
 s
 FRET/TARGET SET 6
 5'-CCGTCACGCCCTCTTCTTATTCTCC-3' 2489
 5'-CCGTCACGCCCTCTTCTTATTCTCC-NH2-3' 2490
 5'-GTCTCAAAGTCCACCCACAGTCTC-3' 2491
 3'-GCCGAGAGAAAGATAAGAGG-5' 2492
 5'-TGGGATGGTCTCTGGGC-3' 2493

C1309, Probe Set
 p
 i
 a
 s
 FRET/TARGET SET 8
 5'-GAACGGCAGGTTTGGCACTCTTGGCATT-NH2-3' 2494
 5'-CAGGTAGGCGTAGGCTTGA-3' 2495
 3'-NH2-CGTCCAAACCGTGAGAACCGTAA-5' 2496
 5'-GGCTCTGTGCTGGGCTA-NH2-3' 2497

Peroxisomal Proliferation Activator Protein Receptor alpha, human (h-PPAR_)
 G1480 Probe Set
 p
 i
 a
 FRET/TARGET SET 6
 5'-CCGTCACGCCCTCCGACTCCGCTCT-(biotin)-3' 2498
 5'-CGGGTGCAGCGCAGCATT-3' 2499
 5'-AGACGGAGTCGGAGGCG-(biotin)-3' 2500

A1044 Probe Set
 p
 i
 a
 FRET/TARGET SET 6
 5'-CCGTCACGCCCTCTGTCACATTGATCGTTCT-(biotin)-3' 2501
 5'-TGGCCTCATAACTCCGATTTTAGCAAG-3' 2502
 5'-AGAACGATCAAGTGACAGAGGCG-(biotin)-3' 2503

C 1311 Probe Set

p 2504
i 2505
a 2506

FRET/TARGET SET 6

5'-CCGCCGAGATCACGTGTCTACGTTTAGAAG-(biotin)-3'
5'-CACATGTACAATACCCCTCTGCATTTTCAATC-3'
5'-CTTCTAAACGTAGGACACGCTGATCTCGG-(biotin)-3'

Peroxisomal Proliferation Activator Protein Receptor beta, human (h-PPAR_)

A595 Probe set

6B. Designed truncated probe and stackers to reduce temperature

p 2507
i 2508
a 2509
s 2510

FRET/TARGET SET 6

5'-CCGTCACGCCCTCTCTTCTGAATCTTGC-3'
5'-CTGGCACCTTGTGCGGTTCTA-3'
3'-NH2-GCGGAGAGAGACTTAGAACG-5'
5'-AGCTGCGCTCACACTTCTCGT-3'

FRET/TARGET SET 6

6C. Design for new INVADER assay with 50% 2'-Me.

p 2511
i 2512
a 2513
s 2514

5'-CCGTCACGCCCTCTCTTCTGAATCTTG-NH2-3'
5'-CTGGCACCTTGTGCGGTTCTA-3'
3'-NH2-GCGGAGAGAGACTTAGAAC-5'
5'-CAGCTGCGCTCACACTTCTCGT-NH2-3'

6D. Truncate probe.

p 2515
i 2516
s 2517

FRET/TARGET SET 6

5'-CCGTCACGCCCTCTCTTCTGAATCTT-NH2-3'
5'-CCTGGCACCTTGTGCGGTTCTA-3'
5'-GCAGCTGCGCTCACACTTCTCGT-NH2-3'

C891 Probe Set

p 2518
i 2519
a 2520
s 2521

FRET/TARGET SET 7

5'-AACGAGCGCACGGTAGGCATTGTAGA-3'
5'-CCTTCTTTTGGTCATGTTGAAGTTTTCAC-3'
3'-CGCGTGCCATCCGTAACATCT-5'
5'-TGTGCTTGGAGAGGCCTTCA-3'

Substance P, rat (r-SubP)

C344 Probe Set

p 2522
i 2523
a 2524
s

FRET/TARGET SET 6

5'-CCGTCACGCCCTGCCACCTGTTTTTCA-NH2-3'
5'-CCATGCCCCATAAGAGCCCTTTAACAGGA-3'
3'-NH2-GCGGAGCGGTGAACAAAAAGT-5'
NO STACKER

A396 Probe Set

p 2525

FRET/TARGET SET 6

5'-CCGTCACGCCCTCTTATGCCCTTTTGTGA-NH2-3'

i 5'-TGCCCATTAGTCCAAACAAAGGAATCTGTA-3' 2526
a 3'-GCGGAGAAATACGGAACACT-5' 2527
s 5'-GAGATCTGACCATGCCCATAAAGAGCC-NH2-3' 2528

C752 Probe Set
p 5'-AACGAGGCGCACGCTGGCAAACTTGT-NH2-3' 2529
i 5'-CCTTTCTGTCTTTGGAGACTTGCATCA-3' 2530
a 3'-NH2-CGCGTGGACCGTTGAACA-5' 2531
s 5'-ACAACTCCATCAACACTGTGCTTTGCTG-NH2-3' 2532

Hepatic Lipase, human (h-LIPC)
A830 Probe Set
p 5'-AACGAGGCGCACCTAGGAAGTGGCA-NH2-3' 2533
i 5'-GTGCTGGGCAATATGCTGTAGAGCG-3' 2534
a 3'-NH2-CGCGTGAGATCCTTCACCGT-5' 2535
s 5'-GCCAGGCTGGAAGGAGC-NH2-3' 2536

C1154 Probe Set
p 5'-CCGCCGAGATCACCGTCTCAGTTTGGT-NH2-3' 2537
i 5'-CGAGTAGTGACATGGTAAAGTTGTTGATTGGCT-3' 2538
a 3'-NH2-CTCTAGTGGCAGAGTCAAAACCA-5' 2539

Hepatic Lipase, rat (r-LIPC)
G357 Probe Set
p 5'-CCGCCGAGATCACCGTCTCAGGGTT-NH2-3' 2540
i 5'-GGGAGATCCAGTCCACTAATCCA-3' 2541
a 3'-NH2-TCTAGTGGTGCAAGTCCCCAA-5' 2542
s 5'-GGGACTGTCGGGACTTCAGG-NH2-3' 2543

C1167 Probe Set
p 5'-GAACGGCAGGTTTGGGGAATTTCTTTATTCTT-NH2-3' 2544
i 5'-ATTCCTTCGCCCAGGGTGATG-3' 2545
a 3'-NH2-GTCCAAACCCCTTAAAGAAATAAGAA-5' 2546
s 5'-CTTTTGTCCCCAGCAGTGT-NH2-3' 2547

Metabotropic Glutamate Receptor 2, rat (r-mGluR2)
C1403 Probe Set
p 5'-AACGAGGCGCACGCTGGTGGGA-NH2-3' 2548
i 5'-GCCTCATAGCATCGCAGAGGTGT-3' 2549
a 3'-NH2-CGCGTGGCACCACCAACCCCT-5' 2550
s 5'-CAGAGGGCACGGTGCATGTTGT-NH2-3' 2551

G-protein coupled receptor 2, rat (r-ETBR-LP2)

A1629 Probe set

P	5'-GAACGGCAGGTTTGTCTCAGCAGACCGC-NH2-3'	2552
I	5'-GAGAGGCCAAAGTGAGACCATGTGAAAAGAAA-3'	2553
a	3'-NH2-CGTCCAAACAGTCGTCTGGCG-5'	2554
s	5'-CATGGATCGGCATGGCCCC-NH2-3'	2555

FRET/TARGET SET 8

i kappa b alpha, human (h-MAD3)

C542 Probe Set

P	5'-AACGAGGGCGCACGGTGTAGGGGGG-(biotin)-3'	2556
I	5'-GCCCTGCTCACAGGCAAT-3'	2557
a	5'-CCCCCTACACCGTGGCG-(biotin)-3'	2558

FRET/TARGET SET 7

C363 Probe Set

P	5'-CCGTCACGCCCTCGTCAGTGCCTTTTC-(biotin)-3'	2559
I	5'-CACCTGGCGGATCACCTCCATGT	2560
A	5'-GAAAGGCACTGACGAGGCG-(biotin)-3'	2561

FRET/TARGET SET 6

G953 Probe Set

P	5'-CCGTCACGCCCTCCCTCATCTCACT-(biotin)-3'	2562
I	5'-ACTCTGACTCTGTGTATAGCTCTT	2563
A	5'-AGTGAGGATGAGGAGGCG-(biotin)-3'	2564

FRET/TARGET SET 6

C923 Probe Set

P	5'-AACGAGCGCACGGTTTCTAGTGTC-NH2-3'	2565
I	5'-CTCACTCTCTGGCAGCATCTGAAT-3'	2566
A	3'-NH2-CGCGTGCCAAAGATCACAGT-5'	2567
S	5'-GCTGGCCCCAGCTGC-NH2-3'	2568

FRET/TARGET SET 7

Lecithin cholesterol acyltransferase, human (h-LCAT)

C821 Probe Set (truncated Probe Design)

P	5'-CCGCCGAGATCACGGTTATGCGCTG-NH2-3'	2569
I	5'-CCAGGGGGAGGTGGTC-3'	2570
a	3'-NH2-TCTAGTGCCAATACGCGACG-5'	2571
s	5'-CTCCTCTTTCAGCTTGATGCTGG-NH2-3'	2572

FRET/TARGET SET 5

C827 Probe Design

P	5'-GAACGGCAGGTTTGGGTGGTGTATGCG-NH2-3'	2573
I	5'-AGAGGGAAACATCCAGGGGGAG-3'	2574
a	3'-NH2-CGTCCAAACCCACCAATACGC-5'	2575

FRET/TARGET SET 8

C1217 Probe Design		
p	FRET/TARGET SET 5	2576
i	5'-CCGCCGAGATCACGAGATGCTGTATCCC-NH2-3'	2577
a	5'-GGTCAGGTTGCTGAAGACCATGTTG-3'	2578
	3'-NH2-TCTAGTGCTCTACGACATAGGG-5'	
Apolipoprotein A-1, human (h-ApoA1)		
A177 Probe Set	FRET/TARGET SET 6	2579
p	5'-CCGTCACGCCCTCTGAGCACATCCACG-NH2-3'	2580
i	5'-ACATAGTCTCTGCCGCTGTCTTA-3'	2581
a	3'-NH2-GCGGAGACTCGGTAGGTGC-5'	2582
s	5'-TACACAGTGGCCAGGTCCTT-NH2-3'	
A227 Probe Set (titrate length of 2'-O-Me in Invader)	FRET/TARGET SET 8	2583
p	5'-GAACGGCAGGTTTGTCCCAAGCGG-NH2-3'	2584
i	5'-GTCAAGGAGCTTTAGGTTTAGCTGTTTA-3'	2585
i	5'-GTCAAGGATCTTTAGGTTTAGCTGTTTA-3'	2586
i	5'-GTCCCAGTTGTCAAGGATCTTTAGGTTTAGCTGTTTA-3'	2587
A	3'-NH2-GTCCAAACAGGGTCCGCC-5'	2588
s	5'-AGCCTTCAAACCTGGGACACATAGTCTC-NH2-3'	
G350 Probe Set	FRET/TARGET SET 5	2589
p	5'-CCGCCGAGATCACCTTCTGTCTCCTT-NH2-3'	2590
i	5'-CTCCTGCCTCAGGCCG-3'	2591
a	3'-NH2-TCTAGTGGAGACAGAGAA-5'	2592
s	5'-TTCCAGGTTATCCAGAACTCC-NH2-3'	
G233 Probe Set	FRET/TARGET SET 11	2593
p	5'-AGAACGGCAGTCTTTCTGTTTCCCAAGG-NH2-3'	2594
i	5'-CCAGTTGTCAAGGAGCTTTAGGTTTAGT-3'	2595
a	3'-NH2-CGTCAGAAAGACAAAGGGTCC-5'	2596
s	5'-CGGAGCCTTCAAACCTGGGACACATAGT-NH2-3'	
Metabotropic Glutamate Receptor 1, rat (r-mGluR1)		
T934 Probe Set	FRET/TARGET SET 11	2597
p	5'-AGAACGGCAGTCTTTAGAAATAGCGCATCTGT-NH2-3'	2598
i	5'-CACTCAGGTCTATGCTTGTGGCT-3'	2599
a	3'-NH2-GTCAGAACTCTTATCCGCTAGACA-5'	2600
s	5'-GGGATGTCGAACAGCTGGAGAAAGATTCT-NH2-3'	
Ubiquitin, human (h-UBIQ)		

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G119 Probe Set (MO4 Arm)

p
l
a

FRET/TARGET SET 6
5'-CCGTACGCTCCTTTACATTTTCTATCGTATCCG-(biotin)-3'
5'-CCTTCCTTATCCTGGATCTTGGCA-3'
3'-(biotin)-GCGGAGGAAATGTAAAAGATAGCATAGGC-5'

2601
2602
2603

G119 Probe Set

p
l
a

FRET/TARGET SET 5
5'-CGCCGAGATCACCTTTACATTTTCTATCGTATCCG-(biotin)-3'
5'-CCTTCCTTATCCTGGATCTTGGCA-3'
3'-(biotin)-CTAGTGGAATGTAAAAGATAGCATAGGC-5'

2604
2605
2606

G131 Probe Set

p
l
a

FRET/TARGET SET 9
5'-CATCTTCGCGGACTGGATCTTGGCC-(biotin)-3'
5'-GCTGATCAGGAGGAATCCTTCCTTATCT-3'
3'-(biotin)-GCCTGACCTAGAACCCGG-5'

2607
2608
2609

Scanned G119 region (ELISA format (No Arrestors)

p
p
p
p
p
l
l
l
l
l
l

5'-CTCTCTCGTCTCTACATTTTCTATCGTATCCG-NH2-3'
5'-CTCTCTCGTCTCTACATTTTCTATCGTATCCG-NH2-3'
5'-CTCTCTCGTCTCTACATTTTCTATCGTATCCG-NH2-3'
5'-CTCTCTCGTCTCTACATTTTCTATCGTATC-NH2-3'
5'-CTCTCTCGTCTCGCCTTACATTTTCTATCG-NH2-3'
5'-GGAATTCCTTCTATCCTGGATCTTGA-3'
5'-GGAATTCCTTCTATCCTGGATCTTGGC-3'
5'-CCTTCCTTATCCTGGATCTTGGCA-3'
5'-TTCCCTTATCCTGGATCTTGGCCA-3'
5'-TCCTTATCCTGGATCTTGGCCTA-3'

2610
2611
2612
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2616
2617
2618
2619

Ubiquitin, mouse (m-UBIQ)

G294 Probe Set

p
l
a

FRET/TARGET SET 7
5'-CCGTCACGCCCTCCTTCTGGATGTTGTA-(biotin)-3'
5'-CCAGGTGCAGGGTTGACTA-3'
3'-(biotin)-GCGGAGGGAAGACCTACAACAT-5'

2620
2621
2622

G294 Probe Set

p
l
a

FRET/TARGET SET 5
5'-CGCCGAGATCACCTTCTGGATGTTGTA-(biotin)-3'
5'-CCAGGTGCAGGGTTGACTA-3'
3'-(biotin)-CTAGTGGAAGACCTACAACAT-5'

2623
2624
2625

G294 Probe Set

p
l

FRET/TARGET SET 6
5'-CCGTCACGCCCTCCTTCTGGATGTTGTAAT-NH2-3'
5'-CCAGGTGCAGGGTTGACTA-3'

2626
2627

2628

3'-NH2-GCGGAGGGAAAGACCTACAACATTA-5'

a

G294 Probe Set

p
i
a

FRET/TARGET SET 6

5'-CCGTCACGCCCTCCCTTCTGGATGTTGTAATC-NH2-3'
5'-CCAGGTGCAGGGTTGACTA-3'
3'-NH2-GCGGAGGGAAAGACCTACAACATTAG-3'

2629
2630
2631

T514 Probe Set

p
i
a

FRET/TARGET SET 7

5'-AACGAGGGCGCACATGTTGTAATCAGAGAGGG-NH2-3'
5'-TGCAGGGTTGACTCTTTCTGGA-3'
3'-NH2-CGCGTGTACAACATTAGTCTCTCCCC-5'

2632
2633
2634

G750 Probe Set

p
i
a

FRET/TARGET SET 9

5'-CATCTTCGCGGACCTTCTGGATGTTGTA-NH2-3'
5'-GGACCCAGGTGCAGGGTTGACTT-3'
3'-NH2-GCCTGGAAGACCTACAACAT-5'

2635
2636
2637

G185 Probe Set

p
i
a

FRET/TARGET SET 9

5'-CATCTTCGCGGACCTTCAAGTTCTCGATGG-NH2-3'
5'-CCCTCTTTATCCTGGATCTTGGCA-3'
3'-NH2-GCGCCTGAAGTGCAAGAGCTACC-5'

2638
2639
2640

FIGURE 48

12		
1	8	C
2	5	U
3	5	U
4	2	U
5	1	U
6	2	C
7	7	G
8	7	A
9	1	U
10	1	C

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